

Rehabilitation after traumatic injury

B.4 Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

NICE guideline <number>

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1.9.7, 1.9.8, 1.9.9, 1.9.10, 1.9.11 and 1.9.12 in the NICE
guideline*

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*These evidence reviews were developed
by the National Guideline Alliance which is
a part of the Royal College of
Obstetricians and Gynaecologists*

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Contents

Summary of review questions covered in this report.....	8
Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury	9
Review question	9
Introduction	9
Summary of the protocol	9
Methods and process	12
Clinical evidence: Adults.....	12
Summary of clinical studies included in the evidence review	12
Results and quality assessment of clinical outcomes included in the evidence review	13
Clinical evidence: Children and young people	13
Summary of clinical studies included in the evidence review	13
Results and quality assessment of clinical outcomes included in the evidence review	13
Economic evidence: Adults and children and young people	13
Summary of studies included in the economic evidence reviews.....	14
Economic model.....	18
The committee’s discussion of the evidence.....	18
References.....	25
Appendices.....	26
Appendix A – Review protocols	26
Review protocol for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?	26
Review protocol for review question: B.4b What rehabilitation interventions relating to participation in society (e.g., return to nursery, education, training or work) are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?	30
Appendix B – Literature search strategies	36
Literature search strategies for review questions:.....	36
B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?.....	36
B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?	36
Review question search strategies	36
Databases: Medline; Medline EPub Ahead of Print; and Medline In-Process & Other Non-Indexed Citations.....	36
Databases: Embase; and Embase Classic	39

Databases: Cochrane Central Register of Controlled Trials; and Cochrane Database of Systematic Reviews	42
Health economics search strategies	45
Databases: Medline; Medline Epub Ahead of Print; and Medline In-Process & Other Non-Indexed Citations	45
Databases: Embase; and Embase Classic	48
Database: Cochrane Central Register of Controlled Trials	52
Appendix C – Clinical evidence study selection	56
Clinical study selection for review questions:	56
B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?	56
B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?	56
Appendix D – Clinical evidence tables	58
Clinical evidence tables for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?	58
Clinical evidence tables for review question: B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?	60
Appendix E – Forest plots	61
Forest plots for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?	61
Forest plots for review question: B.4b What rehabilitation interventions relating to participation in society (e.g., return to nursery, education, training or work) are effective and acceptable for children and young people?	61
Appendix F – GRADE tables	62
GRADE tables for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?	62
GRADE tables for review question: B.4b What rehabilitation interventions relating to participation in society (e.g., return to nursery, education, training or work) are effective and acceptable for children and young people?	62
Appendix G – Economic evidence study selection	63
Economic study selection for:	63
B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?	63
B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?	63

Appendix H – Economic evidence tables	65
Economic evidence tables for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?	65
Economic evidence tables for review question: B.4b What rehabilitation interventions relating to participation in society (e.g., return to nursery, education, training or work) are effective and acceptable for children and young people?	72
Appendix I – Economic evidence profiles	73
Economic evidence profiles for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?	73
Economic evidence profiles for review question: B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?	73
Appendix J – Economic analysis	74
Economic analysis for review questions: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?	74
Economic analysis for review question: B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?	74
Appendix K – Excluded studies	75
Excluded clinical and economic studies for review questions: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?	75
Clinical studies: Adults	75
Economic studies: Adults	81
Excluded clinical and economic studies for review questions: B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?	81
Clinical studies: Children and young people	81
Economic studies: Children and young people	88
Appendix L – Research recommendations	89
Research recommendations for: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?	89
Research recommendations for: B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury? ...	89

1 **Summary of review questions covered**
2 **in this report**

3 This evidence report contains information on 2 reviews

4 B.4a For adults with complex rehabilitation needs after traumatic injury what
5 rehabilitation interventions relating to participation in society are effective and
6 acceptable?

7 B.4b For children and young people with complex rehabilitation needs after
8 traumatic injury what rehabilitation interventions relating to participation in society
9 are effective and acceptable?

1 **Rehabilitation interventions relating to** 2 **participation in society for people with** 3 **complex rehabilitation needs after** 4 **traumatic injury**

5 **Review question**

6 This evidence report contains information on 2 reviews relating to specific
7 rehabilitation programmes and packages for participation in society:

8 B.4a For adults with complex rehabilitation needs after traumatic injury what
9 rehabilitation interventions relating to participation in society are effective and
10 acceptable?

11 B.4b For children and young people with complex rehabilitation needs after
12 traumatic injury what rehabilitation interventions relating to participation in society
13 are effective and acceptable?

14 **Introduction**

15 Traumatic injury can have a profound and long-lasting effect on a person's life. The
16 severity of the injury will have an effect on an individual's ability to return to the same
17 level of function. Some of these effects will be recoverable, and others may be
18 lifelong. The ability to return to the same work or daily lifestyle depends on the
19 required daily living and employment skills, both physical and mental, and the long
20 term deficits of those functions for the person.

21 The importance of returning to work, education and training have significant benefits
22 from the perspective of mental and physical wellbeing. Although during the early
23 period after a traumatic injury it is difficult to predict the outcome for any individual,
24 making realistic goals and expectations need to be considered during the whole of
25 the rehabilitation process. Individuals will fall into a number of categories. Some will
26 be able to get back to work at the same level very shortly after the injury, others may
27 take more time to return to the same level of work. Some will not be able to return to
28 the same type of work, and will need retraining. Some will not be able to return to
29 work but will have goals including access to meaningful activities for day-to-day
30 living. The longer a person is not undertaking their normal activities, the more difficult
31 it is to return the same level functioning. Trying to avoid unnecessary barriers to
32 returning to normality is an important principle for individuals to achieve their goals.

33 The objective of this review was to evaluate the effectiveness of rehabilitation
34 interventions relating to participation in society among people with complex
35 rehabilitation needs after traumatic injury.

36 **Summary of the protocol**

37 Please see Table 1 and Table 2 for a summary of the Population, Intervention,
38 Comparison and Outcome (PICO) characteristics of this review in the adult and
39 children and young people populations, respectively.

1 **Table 1: Summary of the adult protocol (PICO table)**

Population	Adults (aged 18 years or above) with complex rehabilitation needs resulting from traumatic injury that required admission to hospital
Intervention	Standard care consisting of at least 2 of the following: physiotherapy [range of movement exercises, exercises to maintain muscle function, respiratory management, mobilisation and training with mobilisation aids such as crutches or frame], occupational therapy assessment, identification and support of activities of daily living through training or equipment (e.g., raised toilet seats, back rest, bed lever) in addition to at least one of the following: <ul style="list-style-type: none"> • Equipment adaptation • Therapy for instrumental activities of daily living (e.g. shopping, managing money, transport, laundry, cooking). • Therapy for advanced activities of daily living (e.g. hobbies, leisure) • Seating and wheelchairs • Violence reduction intervention programmes (e.g., Red thread, St Giles Trust)
Comparison	Standard care (as defined above) Studies that employ the same intervention program as listed under 'interventions' but vary it in terms of any of the following: <ul style="list-style-type: none"> • Frequency • Intensity • Timing
	<p>Critical</p> <ul style="list-style-type: none"> • Overall quality of life (EURO-QoL 5D 3L, SF-36, SF-12, SF-6D, SFMA) • Changes in activity of daily living (Barthel ADL index, COPM, EADL-Test, GAS, FIMFAM Katz, OARS, PAT, PSMS) • Patient acceptability (any direct measure) <p>Important</p> <ul style="list-style-type: none"> • Return to work or education • Changes in mood (Depression measures – HADS, PH-Q9, BDI, DAS) • Pain (VAS) • Emergency department or hospital admission for violent crime

2 *ADL: Activities of daily living; BDI: Beck depression inventory; COPM: Canadian occupational*
3 *performance measure; DAS: Disability assessment schedule; EADL: Erlangen Activities of Daily Living;*
4 *EURO-QoL 5D 3L: EuroQoL 5 dimensions and 3 levels; FIMFAM: Functional independence measure*
5 *and functional assessment measure; GAS: Goal attainment scale; HADS: Hospital anxiety and*
6 *depression scale; OARS: Older Americans resources and services; PAT: Performance ADL Test; PH-*
7 *Q9: Patient health questionnaire with 9 questions; PSMS: Physical self-maintenance scale; SF-12: 12*
8 *item short-form survey; SF-36: 36 item short-form survey; SF-6D: 6-dimension short-for; SFMA:*
9 *Selective functional movement assessment; VAS: Visual analogue scale*

10 **Table 2: Summary of the children and young people protocol (PICO table)**

Population	Children and young people (aged below 18 years) with complex rehabilitation needs resulting from traumatic injury that required admission to hospital
Intervention	Standard rehabilitation care consisting of: physiotherapy [range of movement exercises, exercises to maintain muscle function, mobilisation and training with mobilisation aids such as crutches or frame], occupational therapy assessment, and identification and

	<p>support of basic activities of daily living through training or aids (e.g. toileting equipment, perching stools, long-handled aids, adapted eating utensils) in addition to at least one of the following:</p> <ul style="list-style-type: none"> • Equipment adaptation • Therapy for instrumental activities of daily living (e.g. learn through play, toileting, feeding, sleeping) • Therapy for advanced activities of daily living (e.g. hobbies, leisure) • Seating and wheelchairs • Violence reduction intervention programmes (e.g., Red thread, St Giles Trust) • Play therapy • Education (school/nursery based ergonomics and equipment provision)
<p>Comparison</p>	<p>Standard care (as defined above)</p> <p>Studies that employ the same intervention program as listed under 'Intervention' but vary it in terms of any of the following:</p> <ul style="list-style-type: none"> • Frequency • Intensity • Timing
	<p>Critical</p> <ul style="list-style-type: none"> • Overall quality of life including quality of sleep (e.g., CHQ-CF80, CHQ-PF-50, PEDS-QL, EURO-QoL 5D 3L Y, SF-36, SF-12, SF-6D, Tarn, SCIM) • Changes in activity of daily living (e.g., Barthel ADL index, COPM, EADL-Test, GAS, FIMFAM, Katz, OARS, PAT, PSMS) • Patient and families and carers' acceptability (any direct measure; if not reported, but patient satisfaction is, this will be reported instead) <p>Babies only:</p> <ul style="list-style-type: none"> • Alberta Infant Motor Scale (AIMS; pre-term to 19 months. • Bayley Assessment (1 to 42 months) <p>Important</p> <ul style="list-style-type: none"> • Return to nursery, education, training or work • Changes in mood (Any measure, PEDS-QL, Depression measures – BDI, DAS, HADS, PH-Q9) • Pain (VAS, any measure) • Emergency department or hospital admission for violent crime

1 *ADL: Activities of daily living; AIMS: Abnormal involuntary movement scale; BDI: Beck depression*
 2 *inventory; CHQ-CF50: Child health questionnaire-parent form; CHQ-CF80: Child health questionnaire-*
 3 *child form; COPM: Canadian occupational performance measure; DAS: Disability assessment schedule;*
 4 *EADL: Erlangen Activities of Daily Living; EURO-QoL 5D 3L Y: EuroQol 5 dimensions and 3 levels;*
 5 *FIMFAM: Functional independence measure and functional assessment measure; GAS: Goal*
 6 *attainment scaling form; HADS: Hospital anxiety and depression scale; OARS: Older Americans*
 7 *resource and services ADL scale; PAT: Performance ADL test; PEDS-QL: Pediatric quality of life*
 8 *inventory; PH-Q9: Patient health questionnaire with 9 questions; PSMS: Physical self-maintenance*
 9 *scale; SCIM: Spinal cord independence measure; SF-12: 12 item short-form survey; SF-36: 36 item*
 10 *short-form survey; SF-6D: 6-dimension short-form; TARN: Trauma audit and research network; VAS:*
 11 *Visual analogue scale*

12 For further details, see the review protocol in appendix A.

1 Methods and process

2 This evidence review was developed using the methods and process described in
3 [Developing NICE guidelines: the manual](#). Methods specific to this review question
4 are described in the review protocol in appendix A and in the methods chapter
5 (Supplement 1).

6 Declarations of interest were recorded according to NICE's 2018 [conflicts of interest](#)
7 [policy](#).

8 Clinical evidence: Adults

9 Included studies

10 One randomised controlled trial (RCT) was identified for this review (Cooper 2006).
11 This study was carried out in the US and compared hospital admissions for violent
12 crime between patients who had received a hospital-based violence reduction
13 intervention (VIP) programme and standard parole and probation and patients who
14 had no involvement from VIP team but only the standard parole and probation. The
15 study included people admitted to the trauma unit with unspecified injuries secondary
16 to violent assaults and who were involved with the criminal justice system in the form
17 of parole and/or probation, that is. they were likely to be involved in gang violence.

18 See the literature search strategy in appendix B and study selection flow chart in
19 appendix C.

20 Excluded studies

21 Studies not included in this review with reasons for their exclusions are provided in
22 appendix K.

23 Summary of clinical studies included in the evidence review

24 A summary of the studies that were included in this review are presented in Table 3.

25 **Table 3: Summary of included studies**

Study	Population	Intervention ^a	Comparison ^a	Outcomes
Cooper 2006 RCT US	N=100 (100 analysed) • Age (<30 years /30-44 years/ 45+ years): ○ Intervention (N) = 29/24/3 ○ Control (N): 26/16/2 Injury cause: Injury secondary to violent assault	Hospital-based violence intervention programme (VIP) + parole and probation	Parole and probation only	<ul style="list-style-type: none"> • Critical <ul style="list-style-type: none"> ○ None • Important <ul style="list-style-type: none"> ○ Emergency department or hospital admission for violent crime (at 2 years)

26 *N: Number; RCT: Randomised controlled trial; VIP: Violence intervention programme*

27 *(a) For full details about the intervention/comparison, please see the evidence tables in Appendix D*

28 See the full evidence tables in appendix D. No meta-analysis was conducted (and so
29 there are no forest plots in appendix E).

1 **Results and quality assessment of clinical outcomes included in the**
2 **evidence review**

3 **Summary of the evidence**

4 No meta-analyses were performed as there was only 1 study included.

5 Of the pre-defined outcomes, evidence was found for hospital admission for violent
6 crime only. There was no evidence for the following outcomes: quality of life,
7 activities of daily living, patient acceptability, return to work or education, changes in
8 mood and pain.

9 One RCT compared the effectiveness of a hospital-based VIP programme + standard
10 parole and probation with standard parole and probation only (Cooper 2006).
11 Hospital admissions for violent crime were statistically significantly and clinically
12 importantly lower in the 'VIP programme + standard parole and probation' group
13 compared to the standard parole and probation group at 2 years follow-up. The
14 evidence was of low quality.

15 The quality of the evidence was assessed using GRADE. See the clinical evidence
16 profiles in appendix F.

17 **Clinical evidence: Children and young people**

18 **Included studies**

19 A systematic review of the clinical literature was conducted but no studies were
20 identified which were applicable to this review question.

21 See the literature search strategy in appendix B and study selection flow chart in
22 appendix C.

23 **Excluded studies**

24 Studies not included in this review with reasons for their exclusions are provided in
25 appendix K.

26 **Summary of clinical studies included in the evidence review**

27 No studies were identified which were applicable to this review question (and so
28 there are no evidence tables in Appendix D). No meta-analysis was undertaken for
29 this review (and so there are no forest plots in Appendix E).

30 **Results and quality assessment of clinical outcomes included in the**
31 **evidence review**

32 **Summary of the evidence**

33 No studies were identified which were applicable to this review question.

34 **Economic evidence: Adults and children and young people**

35 **Included studies**

36 Two economic studies were identified which were relevant to the adult review (Chong
37 2015, Purtle 2015). Also, one study was found which was relevant to both adult and

- 1 children and young people reviews (Juillard 2015), i.e. it assessed the cost-
2 effectiveness of a violence intervention programme in people aged 10-30 years.
- 3 See the literature search strategy in appendix B and study selection flow chart in
4 appendix G.

5 **Excluded studies**

- 6 Studies not included in these reviews with reasons for their exclusions are provided
7 in appendix K.

8 **Summary of studies included in the economic evidence reviews**

9 The systematic review of the economic evidence identified:

- 10 • One US study on the cost-utility of hospital-based violence intervention
11 programme, 'Caught in the Crossfire' in victims of interpersonal violence with
12 penetrating firearm injuries (Chong 2015);
- 13 • One US study on the cost-utility of hospital-based violence intervention
14 programme in people who were intentionally injured by another person
15 (Juillard 2015);
- 16 • One US study on the costs of hospital-based violence intervention
17 programme in violently injured people (Purtle 2015).
- 18 See the economic evidence tables in appendix H. See Table 4 for the economic
19 evidence profiles of the included studies.

1 **Table 4: The economic evidence profiles for: violence intervention programme (VIP)**

Study and country	Limitations	Applicability	Other comments	Incremental costs	Incremental effects	ICER	Uncertainty
Chong 2015 US	Potentially serious limitations ¹	Partially applicable ²	- Cost-utility analysis based on modelling - Population: victims of interpersonal violence with penetrating injuries (firearm injury) - Time horizon: 5 years	\$559 per participant	0.02 QALYs per participant	\$27,950	No probabilistic sensitivity analysis. Equivalence in costs occurred when: - annual recidivism rates in VIP group decreased from 2.5% (base-case) to 2.3% - annual recidivism rates in standard care (SC) group increased from 4% (base-case) to 4.1% - cost of hospitalization for recidivists in the VIP group decreased to \$6,006 (from \$6,513, base-case) - cost of hospitalization for recidivists in the SC group increased to \$19,038 (from \$18,722, base-case) Sensitivity analyses where annual rates of recidivism were simultaneously varied in both groups indicated that if annual recidivism rate is between 0%-5% in VIP group, VIP is cost-effective only if corresponding annual recidivism rate in the SC group is between 3%-5%.
Juillard 2015 US	Potentially serious limitations ³	Partially applicable ⁴	-Cost-utility analysis -Populaation: patients who were intentionally injured by another person	-\$31	0.24	Dominant	No probabilistic sensitivity analysis. VIP remained dominant when varying: - injury case-fatality annual rate between 0.058-0.119 (base-case: 0.088) - utility if healthy (per patient) between 0.82-1.00 (base-case: 0.84) - utility after injury (per patient) between 0.68-

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

Study and country	Limitations	Applicability	Other comments	Incremental costs	Incremental effects	ICER	Uncertainty
			<ul style="list-style-type: none"> -Time horizon: 5 years for costs; lifetime for QALYs -Outcome measure: QALYs 				<p>0.82 (base-case: 0.70)</p> <ul style="list-style-type: none"> - total QALYs (if survive) between 12.56-41.49 (base-case: 21.47) <p>Varying annual VIP recidivism rate between 0.001-0.017 (base-case: 0.009):</p> <ul style="list-style-type: none"> - at lower estimate VIP dominant -at upper estimate the incremental cost-effectiveness ratio (ICER) of VIP: \$9,454 <p>Varying the cost of injury per patient between \$239-897,117 (base-case: \$41,757):</p> <ul style="list-style-type: none"> - at lower estimate the ICER of VIP: \$17,079 - at upper estimate VIP dominant <p>Varying the cost of VIP per patient between \$2,000-\$5,058 (base-case: \$4,150):</p> <ul style="list-style-type: none"> - at lower estimate VIP dominant -at upper estimate the ICER of VIP: \$3,627 <p>Two-way and three-way sensitivity analyses are summarised in economic evidence tables.</p>
Purtle 2015 US	Potentially serious limitations ⁵	Partially applicable ⁶	<ul style="list-style-type: none"> -Cost-offset analysis -Population: violently injured patients -Time horizon: 5 years 	\$82,765-114,008 cost savings for a cohort of 90 people	NA	NA	<p>No probabilistic sensitivity analysis.</p> <p>VIP was cost saving in all scenarios except where it was assumed that VIP reduces the risk of recidivism by 20% (base-case: 25%) and healthcare perspective includes only re-injury costs (i.e. does not consider perpetrator healthcare costs).</p>

- 1 *ICER: Incremental cost-effectiveness ratio; NA: Not applicable; SC: Standard care; QALY: Quality-adjusted life years; VIP: Violence intervention programme*
- 2 1. *Non-UK study*
- 3 2. *A number of simplifying assumptions i.e. "all patients had an equal yearly chance of violent injury recidivism regardless of their discharge status. Second, yearly*
- 4 *chances of recidivism were stable throughout the analytic horizon and did not change based on previous episodes of recidivism." (p. 600); some model inputs*
- 5 *informed by assumptions; annual recidivism rate seems to be high at 2.5% (Chong 2015, annual rate was 0.9%); health state of "well" assigned utility of 1 which may*
- 6 *have overestimated quality-adjusted life years gained; incremental analysis provided however the estimated incremental cost effectiveness ratio does not match*
- 7 *provided mean costs and quality-adjusted life-years; no discounting*
- 8 3. *Non-UK study*
- 9 4. *Violent injury recidivism rate associated with participation in violence intervention programme was 4.5% over 5 years, resulting in an annual rate of 0.9% (this is*
- 10 *substantially lower to Chong 2015); time horizon was lifetime for outcomes, but costs considered only over 5 years, which makes an assumption that they are the*
- 11 *same during the long-term follow-up in both groups; cost data are limited to programme costs and costs associated with hospitalization*
- 12 5. *Non-UK study, no QALYs*
- 13 6. *Some cost estimates used may not be generalizable i.e. local; did not account for violent re-injuries not resulting in medical care at hospitals, limited sensitivity*
- 14 *analysis*
- 15

1 **Economic model**

2 No economic modelling was undertaken for these reviews because the committee
3 agreed that other topics were higher priorities for economic evaluation.

4

5 **The committee's discussion of the evidence**

6 **Interpreting the evidence**

7 ***The outcomes that matter most***

8 When selecting the critical and important outcomes, the committee agreed that the
9 outcomes needed to be sufficiently generalisable to adequately capture patient-
10 important outcomes for the whole adult and child and young people populations,
11 respectively, which they recognised are quite large and very heterogeneous.

12 For both adults and children and young people, they therefore prioritised overall
13 quality of life, activities of daily living, and patient (including family or carer)
14 acceptability as critical outcomes because the committee considered that one of the
15 main aims of rehabilitation after a traumatic injury would be to achieve similar quality
16 of life as before the injury. One of the ultimate aims of rehabilitation of people with a
17 traumatic injury is to make them more independent, get them back into society, and
18 enable their participation by teaching activities of daily living. Patient acceptability
19 was also included as a critical outcome as how acceptable a patient finds the
20 rehabilitation intervention is likely to have a large impact in their compliance.

21 The committee also selected return to nursery, work or education as an important
22 outcome as it measures the level of independence of the patient after traumatic
23 injury. Changes in mood was also considered to be important because depression
24 and post-traumatic stress disorders are common in people with traumatic injury and
25 this outcome reflect the psychological wellbeing. Pain was also selected as an
26 important outcome because pain plays a pivotal role in patients' compliance with
27 rehabilitation programmes and affects quality of life and the ability to undertake
28 activities of daily living. Emergency department or hospital admission for violent
29 crime was included as an important outcome.

30 The only outcome reported in the included study was hospital admissions for violent
31 crime and that was only for adults.

32

33 ***The quality of the evidence***

34 For adults, 1 randomised controlled trial was included as evidence for hospital-based
35 violence intervention programme. The overall quality of the evidence was assessed
36 using GRADE and was of low quality. The main reason for downgrading the evidence
37 was risk of bias (due to concerns about randomization process and lack of blinding)
38 in the study. For children and young people, no evidence was identified which was
39 applicable to this review question. The committee therefore acknowledged that the
40 evidence was very limited by being of low quality and only covering 1 of the target
41 interventions and only 1 of the target outcomes in a small RCT in adults.

42 The majority of the recommendations were therefore based on the experience and
43 expertise of the guideline committee.

1 Benefits and harms

2 There was no evidence for the effectiveness of rehabilitation interventions relating to
3 participation in society among children and young people with complex rehabilitation
4 needs after traumatic injury. Moreover, the evidence for adults was of low quality and
5 very limited, e.g., by only reporting on 1 intervention (hospital-based violence
6 intervention programme) for 1 of the target outcomes (hospital admissions for violent
7 crime) with no evidence found for other interventions. The evidence showed a
8 clinically significant reduction in hospital admissions for violent crime in the hospital-
9 based violence intervention programme compared to the group who received no
10 organised support from a violence intervention programme team. The committee was
11 of a view that on its own, the effectiveness evidence was too limited to inform a
12 recommendation in this area. However, when combined with 3 economic studies
13 showing that such programmes may potentially be cost-effective or cost saving, there
14 was a case for considering a hospital-based violence intervention programme. All
15 other recommendations relating to participation in society are based on the
16 committee experience and expertise.

17 The committee discussed the limited evidence on a hospital-based violence
18 intervention programme. The study included people admitted to the trauma unit with
19 unspecified injuries secondary to violent assaults and who were involved with the
20 criminal justice system in the form of parole and/or probation, that is, they were
21 involved in youth gang violence. The committee was of a view that this evidence was
22 useful to inform the practice in relation to an increasing problem of gang violence.
23 The committee acknowledged that the evidence was from a single non-UK RCT
24 where the intervention was delivered in a context that may not be directly applicable
25 to the UK setting. However, the committee discussed that there are similar hospital-
26 based violence intervention programmes delivered in the UK.

27 The committee used the components of a programme in this existing RCT, 3
28 economic studies, and their expert opinion to recommend the potential composition
29 of such a programme. The committee agreed that such programmes could include
30 psychological support (e.g. counselling), substance abuse rehabilitation, employment
31 or education training, group sessions, family development, social worker
32 involvement, and rehousing, when needed. The committee also discussed the
33 importance of long-term follow-up to ensure the success of such a programme. The
34 committee noted that at present most violence prevention programmes are funded by
35 charities, although there is a precedent within the NHS (i.e. NHS Violence London
36 programme). The committee agreed that effectiveness evidence, together with
37 economic evidence from 3 studies showing that such programmes may represent
38 value for money from a health care perspective, indicated a case for the NHS to
39 consider such programmes. One of the included economic studies also included
40 young people and found such hospital-based violence intervention programme cost-
41 effective in a mixed population of adults and young people. Moreover,, the committee
42 explained that youth gang-related violence is a significant and growing problem in the
43 UK, and in their view, such programmes would be greatly beneficial for young
44 people, with the potential to change their life trajectories. The committee also
45 discussed that the need for such programmes is dependent on the local need and
46 that exact funding arrangements should be left to the individual CCGs.

47 The committee agreed that information on vocation should be gathered as early as
48 individuals are able to engage in the assessment of their rehabilitation needs in order
49 to help the rehabilitation team understand what an individual is hoping to get back to
50 in the future and include that in their rehabilitation plan. It was important to capture
51 information not just about work and education but also about the sort of lifestyle the

1 person has and what is most important to them in their life. Identifying these things
2 early can help rehabilitation practitioners work with the person to agree rehabilitation
3 plans and specific interventions that are targeted at what is most important to that
4 person. This could be the continuation of a particular hobby or aspect of their social
5 life.

6 The committee discussed the importance of life skills as a fundamental part of
7 recovery and agreed that the aim of recommendations in this area was to facilitate an
8 individual's return to social participation of which employment or education was an
9 important part.

10 The committee discussed various aspects of supporting individuals to achieve their
11 realistic rehabilitation goals for life skills, work-related training or education. In
12 relation to this, the committee discussed the provision of equipment and adaptations
13 (e.g., wheelchairs, seating). A distinction was made between basic equipment (e.g.,
14 wheelchairs and seating) and some of the more specialist equipment that would fall
15 under assistive technology. Initially individuals are often issued with very basic
16 equipment. Only longer term and in response to funding applications or via access to
17 specialist services might they be offered advanced or more tailored equipment and
18 assistive technology. The committee discussed the importance of teaching people
19 how to perform everyday activities of daily living following injuries that significantly
20 impact on how these tasks can be performed (e.g., personal care, dressing and
21 bathing, housework, shopping, food preparation, eating and drinking, managing
22 money, driving or using public transport). They also agreed it was important to make
23 clear how to access carer's and disability benefits and grants. The committee agreed
24 the importance of the above in encouraging people to be independent and start
25 adapting to their lives post injury. The committee also discussed the importance of
26 work-related training, this could include training to enable people to stay in their
27 current job, careers advice and retraining where someone is unable to return to a
28 particular role due to the impact of their injury. The committee agreed that liaison with
29 schools, colleges and other education institutions was also needed, and that
30 clinicians needed to liaise with education practitioners regarding education related
31 assessments, appropriate placements and access to education for children and
32 young people (e.g. support for special educational needs and adjustments made in
33 relation to disability in school or new school placements). The committee also noted
34 that this should be done with the person and their families where appropriate. It's
35 important that it is done in cooperation as otherwise it will only be a descriptive
36 process.

37 The committee discussed equipment and assistive technology and that people
38 should be assessed for these as early as possible. The committee agreed that
39 people need to be given information at the earliest opportunity in relation to
40 equipment and assistive technology if they need to apply for funded equipment for
41 use after discharge from hospital. Funding may not be available through normal
42 routes and the person may need to apply for funding which takes time. The
43 committee discussed problems when even very basic equipment for washing and
44 preparing meals is not available in time. This means that individuals cannot do basic
45 tasks independently. This may also delay their discharge. It was noted that it is
46 important to provide any relevant information/support so that equipment is ready in
47 time. Often it takes weeks to months to arrange for equipment and assistive
48 technology, and in the meantime, an individual's quality of life is severely
49 compromised, e.g. if basic equipment like wheelchairs are not available, an individual
50 will not be able to leave their home with a very detrimental impact to their quality of
51 life.

1 The committee discussed planning for hospital discharge and the importance of
2 liaising with community teams to agree a staged return to the workplace or
3 education. In many cases people will be followed up in a hospital outpatient
4 department. Once people start going back to work there may be involvement from
5 the workplace occupational health department or the workplace may arrange for
6 occupational health physiotherapists to assess an individual's needs. The committee
7 agreed that involvement of community teams is important in early discharge, e.g.
8 early intervention community teams should be involved in the first few weeks to
9 check how an individual is doing and that these practitioners should work together to
10 support the persons return to the workplace or education. The committee explained
11 that sometimes people have to return to hospital outpatient services from community
12 because they have received no or inadequate rehabilitation treatment from
13 community teams and return to work or education can be delayed.

14 The committee agreed that although, following hospital discharge, some people may
15 need a dedicated key worker to work closely with them on their recovery journey,
16 some people with less complex rehabilitation and social care needs, would benefit
17 from a dedicated key contact only, to act as the main source of information and
18 advice and retain the overview of the person's rehabilitation and their goals. This was
19 especially true where less coordination and dedicated contact with the person was
20 needed. This would very often be the persons GP and but the committee felt it was
21 important for community teams to consider who would be best placed to maintain this
22 central link with the person for an agreed period once the hospital coordination role
23 came to an end. It was also noted that key contact role may change over time as the
24 person goes through different stages of their recovery and adjustment.

25 The committee discussed the lack of information and knowledge in relation to funding
26 and provision of equipment and assistive technology. The committee explained that
27 funding through ordinary routes may not be possible (e.g. NHS continuing healthcare
28 (CHC) funding). Clinicians usually make an assessment of what would be best for an
29 individual but where funding comes from is sometimes uncertain and it can mean that
30 people are not receiving equipment that they need, especially if they can't afford it
31 themselves. The committee felt that it would be important to highlight and advise
32 people of other funding sources. As an example the committee discussed issues
33 around wheelchair funding, where sometimes people have to get their own
34 wheelchairs, e.g. pay for these themselves or through charities. It was noted that
35 some wheelchair services are doing voucher schemes where people get a voucher
36 for the value of a basic wheelchair and if they want a different type e.g., a lighter
37 weight one, then an individual would have to pay the additional money to get the
38 upgraded type. The committee member with an experience of trauma explained that
39 this can be distressing and very resource-demanding at a time when the person has
40 their physical and psychological rehabilitation to focus on. The committee noted that
41 for older people there is much more involvement from local authorities and the
42 provision of equipment and adaptations is less of an issue because it's cheaper for
43 local authorities to help people stay in their own homes rather than paying for
44 residential stay in nursing homes. The committee highlighted that funding depends
45 on where you are in the country. For example, in some Clinical Commissioning
46 Groups (CCGs) wheelchairs are provided short and long-term, while others may be
47 much more limited in their provision.

48 The committee agreed that it is important to highlight that individuals may have
49 financial difficulties and that people therefore should be signposted to appropriate
50 financial advice, e.g. personal independence payments. The committee noted that it
51 takes approximately 6 months until people start receiving any financial support.
52 People may also need help with compensation claims, which individuals could

1 potentially use to fund equipment and assistive technology, if not available through
2 regular NHS routes, or use the funds to make other adjustments that would facilitate
3 their recovery. The committee also discussed the importance of welfare advice, e.g.
4 practical and emotional support to ensure that individual does not go through the
5 worry of injury / recovery alone. Returning to work and employment can seem
6 daunting, but it can also be a useful part of rehabilitation. The committee explained
7 that this recommendation will ensure that consistent information is provided to people
8 and their family members or carers across services. The committee noted that social
9 workers should ensure that appropriate information is available and people are
10 signposted to such support as needed.

11 The committee discussed the importance of signposting to different services or
12 opportunities for engaging in daily meaningful activity (e.g. hobbies, social activities
13 or voluntary work) because the committee agreed these kinds of activities can help
14 people on the journey of adjustment post-injury and interacting with people and
15 taking part in social activities is a part of that. The committee agreed these things can
16 help the person prepare for life back at school or college or work.

17 The committee discussed the importance of providing information for the person's
18 employer or education provider about their rehabilitation needs so they can make
19 adjustments that support the person's rehabilitation goals, for example, such
20 information may indicate to an employer or education provider that a staged or part-
21 time return to work or education may be more appropriate, or that they may have to
22 think about amending duties. Practice is varied regarding the contact between the
23 multidisciplinary team of rehabilitation specialists at the hospital and the person's
24 employer or school and the kinds of information that is shared varies too. The
25 committee agreed that building these relationships helped focus the rehabilitation
26 activities on what would be important to the person in their everyday life, would help
27 with goal settings, and agreeing a plan and would help facilitate a smoother transition
28 back to work or school.

29 The committee was aware of the NICE guideline on workplace health and included a
30 cross-reference to recommendations about general principles around vocational
31 support and returning to work after long-term sickness absence, and also on
32 workplace culture and policies.

33 Then committee explained that children with traumatic injury have been exposed to a
34 life changing traumatic injury and when returning to a nursery or school may
35 experience anxiety and other pressures, for example, they may be reluctant to return
36 to nursery or school, or physically not feel well. The committee agreed that
37 professionals should support a child in this process, for example by arranging a
38 staged return, flexible curriculum, or time for children to play and socialise, in order to
39 optimise the likelihood of a successful return.

40 The committee explained that the challenges facing children, young people and their
41 families can be overwhelming and that support and guidance in relation to
42 educational support and return to schooling should therefore be made available by
43 professionals to facilitate the transition back to nursery or school.

44 The committee explained that for young people, their families and sometimes the
45 professionals caring for them the transition from children's to adults' services can
46 create confusion and frustration. Sometimes, young people can find themselves
47 without essential care or equipment because of the different ways services are
48 provided, or while funding arrangements are resolved. The committee agreed to
49 highlight this stage along a young person's pathway. The committee therefore cross-

1 referred to the NICE guideline on transition from children's to adults' services for
2 young people using health or social care services.

3 The committee discussed the importance of emotional and psychological support to
4 adults and their families to help with lifestyle adjustments and the effects of the
5 traumatic injury. The committee explained that individuals and their families are in the
6 aftermath of a life-changing traumatic injury and are likely to be affected by many
7 intense, confusing, and frightening emotions and emotionally, cognitively, and
8 physically overwhelmed by this life-changing trauma. The committee agreed that
9 people will have to make substantial adjustments to return to normality, and
10 therefore, emotional and psychological support should be offered to them and their
11 families. The committee would expect all practitioners to be able to provide such
12 support, because dealing with the emotional response to a traumatic injury and the
13 challenges of adjustment and motivation to engage with rehabilitation is an integral
14 part of the work of all rehabilitation practitioners. The committee also agreed that it
15 was important to encourage people to think about social roles (e.g. parenting,
16 sexuality, friendships). Intimate and/or sexual relationships were highlighted as being
17 a significant issue for many people and the committee agreed that practitioners
18 should offer support to enable people to be open about concerns and problems and
19 to explore what adjustments or lifestyle changes were needed.

20 The committee agreed that children, young people and their families in the aftermath
21 of a life changing traumatic injury are likely to be affected by a number of intense,
22 confusing, and frightening emotions and emotionally, cognitively, and physically
23 overwhelmed by this life changing trauma. The committee agreed that many such
24 children will have to make substantial adjustments to be able to return to education,
25 play, social and leisure activities and therefore emotional and psychological support
26 should be offered to them and their families.

27 Despite the limited evidence for adults and lack of evidence for children and young
28 people for these review questions, the committee decided not to make a research
29 recommendation in this area. The committee discussed the lack of controversy in
30 current clinical management and decided to prioritise other areas where new
31 research evidence might be more valuable.

32 **Cost effectiveness and resource use**

33 There was existing evidence from 3 economic studies. All 3 studies were non-UK and
34 were only partially applicable to the NICE decision making context. However, the
35 committee discussed that there are similar hospital-based violence intervention
36 programmes delivered in the UK and these studies provide a good indication as to
37 the potential cost-effectiveness of such programmes from the NHS perspective. Also,
38 2 studies used quality-adjusted life years (QALYs) as an outcome measure, making
39 the interpretation of findings easier. All studies were characterised by potentially
40 serious methodological limitations. However, all showed that hospital-based violence
41 intervention programmes represent value for money from a healthcare perspective.
42 One US study found that violence intervention programme resulted in an incremental
43 cost-effectiveness ratio just above £20,000 per QALY. The other US study found
44 violence intervention programme dominant, i.e. it resulted in lower costs and more
45 QALYs. In addition, another US study found that violence intervention programme
46 resulted in cost savings. One of the studies also included young people indicating the
47 potential cost effectiveness of such programmes in this population. The cost
48 effectiveness of violence intervention programmes is likely to be more favourable in
49 younger people as such programmes can change their lifetime trajectories. The
50 committee was of a view that economic evidence together with effectiveness

1 evidence, albeit very limited, provided a case for such programmes to be considered
2 for the provision by the NHS. The committee noted that at present most violence
3 prevention programmes are funded by charities, although there is a precedent within
4 the NHS (e.g. NHS Violence London programme). The committee also discussed
5 that the need for such programmes is dependent on the local need and that exact
6 funding arrangements should be left to the individual CCGs. There may be some
7 resource implications for services where such programmes do not exist, and are
8 needed.

9 The committee discussed, the importance of assessing for and giving people
10 information and support at the earliest opportunity if they need to apply for funded
11 equipment. It was explained that delay in accessing basic equipment can result in
12 delayed discharge and this can have substantial implications in terms of costs. As an
13 example, the committee noted that a basic wheelchair costs around £100-200. The
14 committee member with experience of trauma explained that in her case the
15 discharge was delayed by at least 3-4 days because basic equipment could not be
16 accessed in time, even though the support process was initiated by an occupational
17 therapist early in the rehabilitation process. The committee explained that such
18 delays are common in their experience. Given that the unit cost of a daily hospital
19 stay is in the region of £400-500 there are clear financial implications to the NHS.
20 There are also important consequences to an individual in terms of their quality of life
21 e.g. not having a wheelchair may mean that an individual is confined to their home
22 and have to rely on a carer. Sometimes this can take months and would have
23 substantial quality of life losses.

24 There was no existing evidence on any other interventions relating to participation in
25 society. The committee based the recommendations on their expert opinion and they
26 represent current practice for most services. There may be some resource
27 implications for services where this is not the case, e.g. more practitioner time to
28 provide support to the person to achieve goals for life skills, signposting, advise.
29 Similarly, the committee would expect all practitioners to be able to provide emotional
30 and psychological support, because dealing with the emotional response to a
31 traumatic injury and the challenges of adjustment and motivation to engage with
32 rehabilitation is an integral part of the work of all rehabilitation practitioners, and the
33 recommendation on this is not expected to result in a resource impact.

34 **Recommendations supported by this evidence review**

35 This evidence review supports recommendations 1.1.6, 1.2.7, 1.4.11, 1.8.2, 1.8.4,
36 1.8.5, 1.8.6, 1.8.15, 1.9.2, 1.9.4, 1.9.6, 1.9.7, 1.9.8, 1.9.9, 1.9.10, 1.9.11 and 1.9.12 in
37 the NICE guideline.

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1 **References**

2 **Evidence for adults**

3 **Chong 2015**

4 Chong, V. E., Smith, R., Garcia, A., Lee, W. S., Ashley, L., Marks, A., et al., Hospital-
5 centered violence intervention programs: a cost-effectiveness analysis. The
6 American Journal of Surgery, 209, 597-603, 2015

7 **Cooper 2006**

8 Cooper, C., Eslinger, D.M., & Stolley, P.D., Hospital-based violence intervention
9 programs work. Journal of Trauma and Acute Care Surgery, 61, 534-540, 2006

10 **Juillard 2015**

11 Juillard, C., Smith, R., Anaya, N., Garcia, A., Kahn, J. G., & Dicker, R. A., Saving
12 lives and saving money: hospital-based violence intervention is cost-effective.
13 Journal of trauma and acute care surgery, 78, 252-258, 2015

14 **Purtle 2015**

15 Purtle, J., Rich, L. J., Bloom, S. L., Rich, J. A., & Corbin, T. J., Cost- benefit analysis
16 simulation of a hospital-based violence intervention program. American journal of
17 preventive medicine, 48, 162-169, 2015

18 **Evidence for children and young people**

19 A systematic review of the literature was conducted, but no studies were identified
20 which were directly applicable to this review question, however, **Juillard 2015**
21 **(Economic evaluation)** included some young people.

22

Appendices

Appendix A – Review protocols

Review protocol for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

Table 5: Review protocol for interventions relating to participation in society for adults with complex rehabilitation needs after traumatic injury

Field	Content
PROSPERO registration number	CRD42019135322
Review title	Rehabilitation packages and programmes for adults
Review question	What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?
Objective	To evaluate the effectiveness of rehabilitation interventions relating to participation in society among adults with complex rehabilitation needs after traumatic injury
Searches	<p>The following databases will be searched:</p> <ul style="list-style-type: none"> • Cochrane Central Register of Controlled Trials (CENTRAL) • Cochrane Database of Systematic Reviews (CDSR) • Embase • MEDLINE <p>Searches will be restricted by:</p> <ul style="list-style-type: none"> • Date: 1995 onwards as there has been significant change in practice since then • English language • Human studies <p>See appendix B for the full search strategies.</p>
Condition or domain being studied	<p>Complex rehabilitation needs resulting from traumatic injury</p> <p>'Complex rehab needs' refers to 'multiple needs, and will always involve coordinated multidisciplinary input from 2 or more allied health professional disciplines, and also include the following:</p> <ul style="list-style-type: none"> • Vocational or educational social support for the person to return to their previous functional level, including return to work, school or college • Emotional, psychological and psychosocial support • Equipment or adaptations • Ongoing recovery from injury that may change the person's rehabilitation needs (for example, restrictions of weight bearing, cast immobilisation in feature clinic) • Further surgery and readmissions to hospital

Field	Content
	Traumatic injury is defined as traumatic injury that requires admission to hospital at the time of injury.'
Population	<p>Inclusion: Adults (aged 18 years or above) with complex rehabilitation needs resulting from traumatic injury that required admission to hospital</p> <p>Exclusion:</p> <ul style="list-style-type: none"> • Adults with complex rehabilitation needs resulting from traumatic brain injury (including anoxic brain injury, for example, drowning and strangulation) • Adults with traumatic injuries who do not have complex rehabilitation needs and/or do not require admission to hospital • Adults with complex rehabilitation needs resulting from traumatic injury that involves chest injury who are admitted to the ICU
Intervention	<p>Standard care consisting of at least 2 of the followings: physiotherapy [range of movement exercises, exercises to maintain muscle function, respiratory management, mobilisation and training with mobilisation aids such as crutches or frame], occupational therapy assessment, identification and support of activities of daily living through training or equipment (e.g. raised toilet seats, back rest, bed lever); in addition to at least one of the following</p> <ul style="list-style-type: none"> • Equipment adaptation • Therapy for instrumental activities of daily living (e.g. shopping, managing money, transport, laundry, cooking). • Therapy for advanced activities of daily living (e.g. hobbies, leisure) • Seating and wheelchairs • Violence reduction intervention programmes (e.g., Red thread, St Giles Trust) <p>Exclusion:</p> <ul style="list-style-type: none"> • Rehabilitation packages and programmes relating to traumatic brain injury, sight loss and hearing loss • Social care interventions (for example, home care or personal assistance) • Long-term care and rehabilitation packages for people with long-term care needs • Specific pain management interventions
Comparator	<p>1) Standard care consisting of at least 2 of the following: physiotherapy [range of movement exercises, exercises to maintain muscle function, respiratory management, mobilisation and training with mobilisation aids such as crutches or frame], occupational therapy assessment, identification and support of activities of daily living through training or equipment (e.g. raised toilet seats, back rest, bed lever).</p> <p>2) Studies that employ the same intervention program as listed under 'interventions' but vary it in terms of any of the following:</p> <ul style="list-style-type: none"> • Frequency • Intensity • Timing
Types of study to be included	<ul style="list-style-type: none"> • Systematic review of RCTs • Randomised controlled trial <p>If no RCT data are available for an intervention, evidence from the followings will be considered in order</p> <ul style="list-style-type: none"> • Cluster-randomised trial • Systematic review of non-randomised studies • Comparative prospective cohort studies with N\geq100 per treatment arm • Comparative retrospective cohort studies with N\geq100 per treatment arm

Field	Content
Other exclusion criteria	<p>Study design:</p> <ul style="list-style-type: none"> • Cross-over design • Case-controls • Cross-sectional • Case series and case reports • Audits <p>Language:</p> <ul style="list-style-type: none"> • Non-English <p>Publication status:</p> <ul style="list-style-type: none"> • Abstract only
Context	<p>Settings - Inclusion:</p> <ul style="list-style-type: none"> • All inpatient, outpatient and community settings in which rehabilitation services following traumatic injury are provided <p>Exclusion:</p> <ul style="list-style-type: none"> • Accident and emergency departments • Critical care units • Prisons
Primary outcomes (critical outcomes)	<p>Critical:</p> <ul style="list-style-type: none"> • Overall quality of life (EURO-QoL 5D 3L, SF-36, SF-12, SF-6D, SFMA) • Changes in activity of daily living (Barthel ADL index, COPM, E-ADL-Test, GAS, FIMFAM, Katz, OARS, PAT, PSMS) • Patient acceptability (any direct measure) <p>Timeframe for the follow-up will be 0 months to 5 years. This will be grouped into short-term (0 to 6 months) and long-term (>6 months to 5 years).</p>
Secondary outcomes (important outcomes)	<p>Important:</p> <ul style="list-style-type: none"> • Return to work or education • Changes in mood (Depression measures – HADS, PH-Q9, BDI, DAS) • Pain (VAS) • Emergency department or hospital admission for violent crime <p>Timeframe for the follow-up will be 0 months to 5 years. This will be grouped into short-term (0 to 6 months) and long-term (>6 months to 5 years).</p>
Data extraction (selection and coding)	<p>All references identified by the searches and from other sources will be uploaded into STAR and de-duplicated. 100% of the abstracts will be reviewed by two reviewers, with any disagreements resolved by discussion or, if necessary, a third independent reviewer. The full text of potentially eligible studies will be retrieved and will be assessed in line with the criteria outlined above. A standardised form will be used to extract data from studies (see Developing NICE guidelines: the manual section 6.4.)</p>

Field	Content																					
Risk of bias (quality) assessment	Risk of bias will be assessed using the appropriate checklist as described in Developing NICE guidelines: the manual.																					
Strategy for data synthesis	<p>NGA STAR software will be used for generating bibliographies/citations, study sifting and data extraction.</p> <p>If pairwise meta-analyses are undertaken, they will be performed using Cochrane Review Manager (RevMan).</p> <p>'GRADEpro' will be used to assess the quality of evidence for each outcome.</p>																					
Analysis of sub-groups	<p>No subgroups were specified for this question for stratification of the data, but if there is heterogeneity, we will look at the following subgroups to try to identify the source of it:</p> <ul style="list-style-type: none"> • Upper limb / lower limb • People with pre-existing physical and/or mental health conditions (including substance misuse), physical and learning disability • Age below 65 years / age above 65 years • Frail / not frail • Vulnerable adults or those who require safeguarding 																					
Type and method of review	Intervention																					
Language	English																					
Country	England																					
Anticipated or actual start date	10/01/2019																					
Anticipated completion date	24/11/2020																					
Stage of review at time of this submission	<table border="1"> <thead> <tr> <th>Review stage</th> <th>Started</th> <th>Completed</th> </tr> </thead> <tbody> <tr> <td>Preliminary searches</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Piloting of the study selection process</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Formal screening of search results against eligibility criteria</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Data extraction</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Risk of bias (quality) assessment</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Data analysis</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>	Review stage	Started	Completed	Preliminary searches	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Piloting of the study selection process	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Formal screening of search results against eligibility criteria	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Data extraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Risk of bias (quality) assessment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Data analysis	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Risk of bias (quality) assessment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																				
Data analysis	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																				
Named contact	National Guideline Alliance																					
Review team members	National Guideline Alliance																					
Funding sources/sponsor	This systematic review is being completed by the National Guideline Alliance which receives funding from NICE.																					
Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses)																					

Field	Content
	must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.
Collaborators	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based recommendations in line with section 3 of Developing NICE guidelines: the manual. Members of the guideline committee are available on the NICE website: https://www.nice.org.uk/guidance/indevelopment/gid-ng10105
Other registration details	
Reference/URL for published protocol	https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=135322
Dissemination plans	
Keywords	
Details of existing review of same topic by same authors	
Current review status	
Additional information	
Details of final publication	www.nice.org.uk

ADL: Activities of daily living; BDI: Beck depression inventory; CDSR: Cochrane Database of Systematic Reviews; CENTRAL: Cochrane Central Register of Controlled Trials; COPM: Canadian occupational performance measure; DAS: Disability assessment schedule; EADL: Erlangen Activities of Daily Living; EURO-QoL 5D 3L: EuroQol 5 dimensions and 3 levels; FIMFAM: Functional independence measure and functional assessment measure; GAS: Goal attainment scale; GRADE: Grading of Recommendations Assessment, Development and Evaluation; HADS: Hospital anxiety and depression scale; ICU: Intensive care unit; N: Number of people; NGA: National Guideline Alliance; NICE: National Institute for Health and Care Excellence; OARS: Older Americans resources and services; PAT: Performance ADL; PH-Q9: Patient health questionnaire with 9 questions; PSMS: Physical self-maintenance scale; RCT: Randomised controlled trial; SF-12: 12 item short-form survey; SF-36: 36 item short-form survey; SF-6D: 6-dimension short-form; SFMA: Selective functional movement assessment; VAS: Visual analogue scale

Review protocol for review question: B.4b What rehabilitation interventions relating to participation in society (e.g., return to nursery, education, training or work) are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?

Table 6: Review protocol for intervention relating to participation in society for children and young people with complex rehabilitation needs after traumatic injury

Field	Content
PROSPERO registration number	CRD42019135324
Review title	Rehabilitation packages and programmes for children and young people

Field	Content
Review question	What rehabilitation interventions relating to participation in society (e.g., return to nursery, education, training or work) are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?
Objective	To evaluate the effectiveness of rehabilitation interventions relating to participation in society among children and young people with complex rehabilitation needs after traumatic injury
Searches	<p>The following databases will be searched:</p> <ul style="list-style-type: none"> • Cochrane Central Register of Controlled Trials (CENTRAL) • Cochrane Database of Systematic Reviews (CDSR) • Embase • MEDLINE <p>Searches will be restricted by:</p> <ul style="list-style-type: none"> • Date: 1995 onwards as there has been significant change in practice since then • English language • Human studies <p>The full search strategies for MEDLINE database will be published in the final review.</p>
Condition or domain being studied	<p>Complex rehabilitation needs resulting from traumatic injury</p> <p>Complex rehab needs' refers to 'multiple needs, and will always involve coordinated multidisciplinary input from 2 or more allied health professional disciplines, and also include the following:</p> <ul style="list-style-type: none"> • Vocational or educational social support for the person to return to their previous functional level, including return to work, school or college • Emotional, psychological and psychosocial support • Equipment or adaptations • Ongoing recovery from injury that may change the person's rehabilitation needs (for example, restrictions of weight bearing, cast immobilisation in feature clinic) • Further surgery and readmissions to hospital <p>Traumatic injury is defined as 'traumatic injury as injury that requires admission to hospital at the time of injury.</p>
Population	<p>Inclusion: Children and young people (aged below 18 years) with complex rehabilitation needs resulting from traumatic injury that required admission to hospital</p> <p>Exclusion:</p> <ul style="list-style-type: none"> • Children and young people with complex rehabilitation needs resulting from traumatic brain injury (including anoxic brain injury, for example, drowning and strangulation) • Children and young people with traumatic injuries who do not have complex rehabilitation needs and/or do not require admission to hospital • Children and young people with complex rehabilitation needs resulting from traumatic injury who are admitted to the PICU
Intervention	<p>Standard rehabilitation care consisting of: physiotherapy [range of movement exercises, exercises to maintain muscle function, mobilisation and training with mobilisation aids such as crutches or frame], occupational therapy assessment, and identification and support of basic activities of daily living through training or aids (e.g. toileting equipment, perching stools, long-handled aids, adapted eating utensils) in addition to at least one of the following:</p> <ul style="list-style-type: none"> • Equipment adaptation • Therapy for instrumental activities of daily living (e.g. learn through play, toileting, feeding, sleeping).

Field	Content
	<ul style="list-style-type: none"> • Therapy for advanced activities of daily living (e.g. hobbies, leisure) • Seating and wheelchairs • Violence reduction intervention programmes (e.g., Red thread, St Giles Trust) • Play therapy • Education (school/nursery based ergonomics and equipment provision) <p>Exclusion:</p> <ul style="list-style-type: none"> • Rehabilitation packages and programmes relating to traumatic brain injury, sight loss and hearing loss • Social care interventions (for example, home care or personal assistance) • Long-term care and rehabilitation packages for people with long-term care needs • Specific pain management interventions
Comparator	<p>1) Standard rehabilitation care consisting of: physiotherapy [range of movement exercises, exercises to maintain muscle function, mobilisation and training with mobilisation aids such as crutches or frame], occupational therapy assessment, and identification and support of basic activities of daily living through training or aids (e.g. toileting equipment, perching stools, long-handled aids, adapted eating utensils).</p> <p>2) Studies that employ the same intervention program as listed under ‘interventions’ but vary it in terms of any of the following:</p> <ul style="list-style-type: none"> • Frequency • Intensity • Timing
Types of study to be included	<ul style="list-style-type: none"> • Systematic review of RCTs • Randomised controlled trial <p>If no RCT data are available for an intervention, evidence from the followings will be considered in order</p> <ul style="list-style-type: none"> • Cluster-randomised trial • Systematic review of non-randomised studies • Comparative prospective cohort studies with N≥100 per treatment arm • Comparative retrospective cohort studies with N≥100 per treatment arm
Other exclusion criteria	<p>Study design:</p> <ul style="list-style-type: none"> • Cross-over design • Case-controls • Cross-sectional • Case series and case reports • Audits <p>Language:</p> <ul style="list-style-type: none"> • Non-English <p>Publication status:</p>

Field	Content
	<ul style="list-style-type: none"> Abstract only
Context	<p>Settings - Inclusion:</p> <ul style="list-style-type: none"> All inpatient, outpatient and community settings in which rehabilitation services following traumatic injury are provided <p>Exclusion:</p> <ul style="list-style-type: none"> Accident and emergency departments Critical care units Prisons
Primary outcomes (critical outcomes)	<p>Critical:</p> <ul style="list-style-type: none"> Overall quality of life including quality of sleep (e.g., CHQ-CF80, CHQ-PF-50, PEDS-QL, EURO-QoL 5D 3L Y, SF-36, SF-12, SF-6D, Tarn, SCIM) Changes in activity of daily living (e.g., Barthel ADL index, COPM, EADL-Test, GAS, FIMFAM, Katz, OARS, PAT, PSMS) Patient and families and carers' acceptability (any direct measure; if not reported, but patient satisfaction is, this will be reported instead) <p>Babies only:</p> <ul style="list-style-type: none"> Alberta Infant Motor Scale (AIMS; pre-term to 19 months). Bayley Assessment (1 to 42 months) <p>Timeframe for the follow-up will be 0 to 5 years. This will be grouped into short-term (0 to 6 months) and long-term (> 6 months to 5 years).</p>
Secondary outcomes (important outcomes)	<p>Important:</p> <ul style="list-style-type: none"> Return to nursery, education, training or work Changes in mood (Any measure, PEDS-QL, Depression measures – BDI, DAS, HADS, PH-Q9) Pain (VAS, any measure) Emergency department or hospital admission for violent crime <p>Timeframe for the follow-up will be 0 to 5 years. This will be grouped into short-term (0 to 6 months) and long-term (> 6 months to 5 years).</p>
Data extraction (selection and coding)	<p>All references identified by the searches and from other sources will be uploaded into STAR and de-duplicated. 5% of the abstracts will be reviewed by two reviewers, with any disagreements resolved by discussion or, if necessary, a third independent reviewer. The full text of potentially eligible studies will be retrieved and will be assessed in line with the criteria outlined above. A standardised form will be used to extract data from studies (see Developing NICE guidelines: the manual section 6.4.</p>
Risk of bias (quality) assessment	<p>Risk of bias will be assessed using the appropriate checklist as described in Developing NICE guidelines: the manual.</p>
Strategy for data synthesis	<p>NGA STAR software will be used for generating bibliographies/citations, study sifting and data extraction.</p> <p>If pairwise meta-analyses are undertaken, they will be performed using Cochrane Review Manager (RevMan).</p>

Field	Content																					
	'GRADEpro' will be used to assess the quality of evidence for each outcome.																					
Analysis of sub-groups	<p>The following subgroups were specified for this question for stratification of the data:</p> <ul style="list-style-type: none"> • Children and young people who are suspected of sustaining non-accidental injuries versus accidental injuries • Children and young people with parents known to social services versus not known • Children and young people with young (< 20 years at birth of child) parents versus not young (≥ 20 years at birth of child) • Children and young people with parents from deprived backgrounds versus not deprived backgrounds • Children and young people with parents who have mental health issues versus none <p>If there is any further unexplained heterogeneity, we will look at the following subgroups to try to identify the source of it:</p> <ul style="list-style-type: none"> • Upper limb / lower limb • Children and young people with pre-existing physical and/or mental health conditions (including substance misuse), physical and learning disability versus no pre-existing conditions • Children and young people whose parents are very involved in their rehabilitation/recovery (e.g., by staying overnight in hospital) versus not involved • Age (0-3 versus 4-7 versus 8-12 versus 13-17) 																					
Type and method of review	Intervention																					
Language	English																					
Country	England																					
Anticipated or actual start date	15/04/2019																					
Anticipated completion date	24/11/2020																					
Stage of review at time of this submission	<table border="1"> <thead> <tr> <th>Review stage</th> <th>Started</th> <th>Completed</th> </tr> </thead> <tbody> <tr> <td>Preliminary searches</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Piloting of the study selection process</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Formal screening of search results against eligibility criteria</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Data extraction</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Risk of bias (quality) assessment</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Data analysis</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>	Review stage	Started	Completed	Preliminary searches	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Piloting of the study selection process	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Formal screening of search results against eligibility criteria	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Data extraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Risk of bias (quality) assessment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Data analysis	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Risk of bias (quality) assessment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																				
Data analysis	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																				
Named contact	National Guideline Alliance																					
Review team members	National Guideline Alliance																					
Funding sources/sponsor	This systematic review is being completed by the National Guideline Alliance which receives funding from NICE.																					
Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses)																					

Field	Content
	must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.
Collaborators	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based recommendations in line with section 3 of Developing NICE guidelines: the manual. Members of the guideline committee are available on the NICE website: https://www.nice.org.uk/guidance/indevelopment/gid-ng10105
Other registration details	
Reference/URL for published protocol	https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=135324
Dissemination plans	
Keywords	
Details of existing review of same topic by same authors	
Current review status	
Additional information	
Details of final publication	www.nice.org.uk

ADL: Activities of daily living; AIMS: Abnormal involuntary movement scale; BDI: Beck depression inventory; CDSR: Cochrane Database of Systematic Reviews; CENTRAL: Cochrane Central Register of Controlled Trials; CHQ-CF50: Child health questionnaire-parent form; CHQ-CF80: Child health questionnaire-child form; COPM: Canadian occupational performance measure; DAS: Disability assessment schedule; EADL: Erlangen Activities of Daily Living; EURO-QoL 5D 3L Y: EuroQoL 5 dimensions and 3 levels; FIMFAM: Functional independence measure and functional assessment measure; GAS: Goal attainment scaling form; GRADE: Grading of Recommendations Assessment, Development and Evaluation; HADS: Hospital anxiety and depression scale; N: Number of people; NGA: National Guideline Alliance; NICE: National Institute for Health and Care Excellence; OARS: Older Americans resource and services ADL scale; PAT: Performance ADL test; PEDS-QL: Pediatric quality of life inventory; PH-Q9: Patient health questionnaire with 9 questions; PICU: Paediatric intensive care unit; PSMS: Physical self-maintenance scale; RCT: Randomised controlled trial; SCIM: Spinal cord independence measure; SF-12: 12 item short-form survey; SF-36: 36 item short-form survey; SF-6D: 6-dimension short-form; TARN: Trauma audit and research network; VAS: Visual analogue scale

Appendix B – Literature search strategies

Literature search strategies for review questions:

B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?

A combined search was conducted for both review questions.

Review question search strategies

Databases: Medline; Medline Epub Ahead of Print; and Medline In-Process & Other Non-Indexed Citations

Date of last search: 10/02/2020

#	Searches
1	(exp "WOUNDS AND INJURIES"/ not (ASPHYXIA/ or BATTERED CHILD SYNDROME/ or exp BIRTH INJURIES/ or exp "BITES AND STINGS"/ or exp DROWNING/ or "EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"/ or exp FROSTBITE/ or exp HEAT STRESS DISORDERS/ or exp RADIATION INJURIES/ or RETROPNEUMOPERITONEUM/ or SURGICAL WOUND/)) and (HOSPITALIZATION/ or PATIENT ADMISSION/ or ADOLESCENT, HOSPITALIZED/ or CHILD, HOSPITALIZED/ or exp HOSPITALS/ or exp EMERGENCY SERVICE, HOSPITAL/ or exp INTENSIVE CARE UNITS/ or REHABILITATION CENTERS/)
2	(exp "WOUNDS AND INJURIES"/ not (ASPHYXIA/ or BATTERED CHILD SYNDROME/ or exp BIRTH INJURIES/ or exp "BITES AND STINGS"/ or exp DROWNING/ or "EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"/ or exp FROSTBITE/ or exp HEAT STRESS DISORDERS/ or exp RADIATION INJURIES/ or RETROPNEUMOPERITONEUM/ or SURGICAL WOUND/)) and (hospitali?ed or hospitali?tion? or ((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?))) .ti,ab.
3	((hospitali?ed or hospitali?ation?) adj10 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$ or accident?)) .ti,ab.
4	((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?) adj5 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$ or accident?)) .ti,ab.
5	(patient? adj5 trauma\$) .ti,ab.
6	(patient? adj3 (burn? or burned or fractur\$)) .ti,ab.
7	wound\$ patient? .ti,ab.
8	injur\$ patient? .ti,ab.
9	accident\$ patient? .ti,ab.
10	(exp "WOUNDS AND INJURIES"/ not (ASPHYXIA/ or BATTERED CHILD SYNDROME/ or exp BIRTH INJURIES/ or exp "BITES AND STINGS"/ or exp DROWNING/ or "EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"/ or exp FROSTBITE/ or exp HEAT STRESS DISORDERS/ or exp RADIATION INJURIES/ or RETROPNEUMOPERITONEUM/ or SURGICAL WOUND/)) and trauma\$.ti.
11	(exp "WOUNDS AND INJURIES"/ not (ASPHYXIA/ or BATTERED CHILD SYNDROME/ or exp BIRTH INJURIES/ or exp "BITES AND STINGS"/ or exp DROWNING/ or "EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"/ or exp FROSTBITE/ or exp HEAT STRESS DISORDERS/ or exp RADIATION INJURIES/ or RETROPNEUMOPERITONEUM/ or SURGICAL WOUND/)) and trauma\$.ab. /freq=2
12	exp MULTIPLE TRAUMA/
13	TRAUMATOLOGY/
14	(trauma\$ adj5 (injur\$ or wound\$ or burn? or burned or fractur\$)) .ti,ab.
15	((complex\$ or multiple or critical\$) adj3 (injur\$ or wound\$ or burn? or burned or fractur\$)) .ti,ab.
16	(trauma\$ adj3 (severe or severely or major or multiple)) .ti,ab.
17	((injur\$ or wound\$ or burn? or burned or fractur\$) adj2 (severe or severely or major or multiple)) .ti,ab.
18	((physical\$ or body or bodily) adj3 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$)) .ti,ab.
19	(acute adj1 (injur\$ or trauma\$ or wound\$ or burn? or burned or fractur\$)) .ti,ab.
20	(polytrauma? or poly-trauma?) .ti,ab.
21	traumatolog\$.ti,ab.
22	(ACCIDENTS/ or ACCIDENTAL FALLS/ or ACCIDENTS, HOME/ or ACCIDENTS, OCCUPATIONAL/ or

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Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
	ACCIDENTS, TRAFFIC/) and (exp *WOUNDS AND INJURIES"/ not (ASPHYXIA/ or BATTERED CHILD SYNDROME/ or exp BIRTH INJURIES/ or exp "BITES AND STINGS"/ or exp DROWNING/ or "EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"/ or exp FROSTBITE/ or exp HEAT STRESS DISORDERS/ or exp RADIATION INJURIES/ or RETROPNEUMOPERITONEUM/ or SURGICAL WOUND/))
23	(ACCIDENTS/ or ACCIDENTAL FALLS/ or ACCIDENTS, HOME/ or ACCIDENTS, OCCUPATIONAL/ or ACCIDENTS, TRAFFIC/) and (injur\$ or wound? or trauma\$ or burn? or burned or fractur\$).ti.
24	(ACCIDENTS/ or ACCIDENTAL FALLS/ or ACCIDENTS, HOME/ or ACCIDENTS, OCCUPATIONAL/ or ACCIDENTS, TRAFFIC/) and (injur\$ or wound? or trauma\$ or burn? or burned or fractur\$).ab. /freq=2
25	(accident? adj5 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$)).ti,ab.
26	(accident? adj3 (serious\$ or severe or severely or major)).ti,ab.
27	(ACCIDENTS/ or ACCIDENTAL FALLS/ or ACCIDENTS, HOME/ or ACCIDENTS, OCCUPATIONAL/ or ACCIDENTS, TRAFFIC/) and (HOSPITALIZATION/ or PATIENT ADMISSION/ or ADOLESCENT, HOSPITALIZED/ or CHILD, HOSPITALIZED/ or exp HOSPITALS/ or exp EMERGENCY SERVICE, HOSPITAL/ or exp INTENSIVE CARE UNITS/ or REHABILITATION CENTERS/)
28	(ACCIDENTS/ or ACCIDENTAL FALLS/ or ACCIDENTS, HOME/ or ACCIDENTS, OCCUPATIONAL/ or ACCIDENTS, TRAFFIC/) and (hospitali?ed or hospitali?tion? or ((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?)).ti,ab.
29	*SPINAL CORD INJURIES/ or *SPINAL CORD COMPRESSION/
30	exp *THORACIC INJURIES/ or *ACUTE LUNG INJURY/
31	*PERIPHERAL NERVE INJURIES/ or exp *CRANIAL NERVE INJURIES/
32	exp *AMPUTATION/ or *AMPUTATION, TRAUMATIC/ or *AMPUTEES/ or *AMPUTATION STUMPS/ or *LIMB SALVAGE/
33	((spinal\$ or spine? or chest? or thoracic\$ or nerve?) adj3 injur\$).ti.
34	((spinal\$ or spine?) adj3 cord? adj3 compress\$).ti.
35	((Flail\$ or stove in) adj3 chest?).ti.
36	(rib? adj3 fractur\$).ti.
37	((brachial or lumbosacral or lumba or sacral or cervical or coccygeal) adj3 plexus adj3 injur\$).ti.
38	(amputat\$ or amputee?).ti.
39	(limb? adj3 (loss or losing or lost or salvag\$ or re-construct\$ or reconstruct\$)).ti.
40	*HEAD INJURIES, CLOSED/ or *HEAD INJURIES, PENETRATING/
41	(head adj3 injur\$).ti.
42	or/1-41
43	exp BRAIN INJURIES/
44	(brain adj3 injur\$).ti,ab.
45	or/43-44
46	42 not 45
47	"EQUIPMENT AND SUPPLIES"/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
48	EQUIPMENT DESIGN/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
49	ENVIRONMENT DESIGN/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
50	ERGONOMICS/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
51	SELF-HELP DEVICES/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
52	COMMUNICATION AIDS FOR DISABLED/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
53	((adapt\$ or modif\$) adj3 equipment).ti,ab.
54	(equipment adj10 daily adj3 living).ti,ab.
55	(equipment adj5 participat\$).ti,ab.
56	(equipment adj5 independen\$).ti,ab.
57	(ergonomic? adj10 daily adj3 living).ti,ab.
58	(ergonomic? adj5 participat\$).ti,ab.
59	(ergonomic? adj5 independen\$).ti,ab.
60	(aid? adj3 daily adj3 living).ti,ab.
61	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj10 daily adj3 living).ti,ab.
62	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj5 participat\$).ti,ab.
63	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj5 independen\$).ti,ab.
64	(environment\$ adj3 control\$ adj10 daily adj3 living).ti,ab.
65	(environment\$ adj3 control\$ adj5 participat\$).ti,ab.
66	(environment\$ adj3 control\$ adj5 independen\$).ti,ab.
67	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or (curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 daily adj3 living).ti,ab.
68	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or

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Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
	(curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 (social\$ or communit\$) adj3 participat\$).ti,ab.
69	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or (curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 independen\$ adj3 (live? or living patient?)).ti,ab.
70	((car or cars or vehicle?) adj3 adapt\$).ti,ab.
71	or/47-70
72	(instrumental adj3 activit\$ adj3 daily adj3 living adj10 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
73	OCCUPATIONAL THERAPY/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
74	EXERCISE THERAPY/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
75	(activit\$ adj3 daily adj3 living adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
76	(independen\$ adj3 (live? or living or patient?) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
77	((social\$ or communit\$) adj3 participat\$ adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
78	((shop\$ or laundry or cook\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
79	(manag\$ adj3 (money or finance? or bank\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
80	or/72-79
81	(advanced adj3 activit\$ adj3 daily adj3 living adj10 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
82	OCCUPATIONAL THERAPY/ and (LEISURE ACTIVITIES/ or RECREATION/ or HOBBIES/ or exp SPORTS/ or "PLAY AND PLAYTHINGS"/)
83	RECREATION THERAPY/
84	((leisure or recreation\$ or hobb\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
85	(sport? adj3 therap\$).ti,ab.
86	or/81-85
87	WHEELCHAIRS/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
88	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj10 daily adj3 living).ti,ab.
89	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj5 participat\$).ti,ab.
90	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj5 independen\$).ti,ab.
91	or/87-90
92	*VIOLENCE/pc [Prevention & Control]
93	*VIOLENCE/ and RISK ASSESSMENT/
94	((violen\$ or crime? or gun? or knife? or knifing? or stabbed or stabbing?) adj3 (intervention? or program\$ or project? or support\$ or charit\$)).ti,ab.
95	Redthread.ti,ab.
96	St Giles Trust.ti,ab.
97	or/92-96
98	((adolescenc\$ or teen\$ or youth\$ or juvenile? or minors or child\$ or schoolchild\$ or "school age" or "school aged" or preschool\$ or toddler\$ or kid? or boy? or girl? or infan\$ or neonat\$ or newborn\$ or baby or babies) adj10 (toilet\$ or feed\$ or sleep\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
99	learn\$ through play\$.ti,ab.
100	or/98-99
101	PLAY THERAPY/
102	(play\$ adj3 therap\$).ti,ab.
103	or/101-102
104	(SCHOOLS/ or SCHOOLS, NURSERY/ or NURSERIES/ or CHILD DAY CARE CENTERS/) and (EQUIPMENT DESIGN/ or ENVIRONMENT DESIGN/ or ERGONOMICS/ or SELF-HELP DEVICES/ or COMMUNICATION AIDS FOR DISABLED/ or WHEELCHAIRS/)
105	((school\$ or nursery or nurseries or kindergarten?) adj5 (equipment or ergonomic\$)).ti,ab.
106	((school\$ or nursery or nurseries or kindergarten?) adj5 (assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?)).ti,ab.
107	((school\$ or nursery or nurseries or kindergarten?) adj5 environment\$ adj3 control\$).ti,ab.
108	((school\$ or nursery or nurseries or kindergarten?) adj5 (wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?)).ti,ab.
109	or/104-108
110	46 and 71
111	46 and 80
112	46 and 86
113	46 and 91
114	46 and 97
115	46 and 100
116	46 and 103

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
117	46 and 109
118	or/110-117
119	limit 118 to english language
120	limit 119 to yr="1995 -Current"
121	LETTER/
122	EDITORIAL/
123	NEWS/
124	exp HISTORICAL ARTICLE/
125	ANECDOTES AS TOPIC/
126	COMMENT/
127	CASE REPORT/
128	(letter or comment*).ti.
129	or/121-128
130	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
131	129 not 130
132	ANIMALS/ not HUMANS/
133	exp ANIMALS, LABORATORY/
134	exp ANIMAL EXPERIMENTATION/
135	exp MODELS, ANIMAL/
136	exp RODENTIA/
137	(rat or rats or mouse or mice).ti.
138	or/131-137
139	120 not 138

Databases: Embase; and Embase Classic

Date of last search: 10/02/2020

#	Searches
1	(exp INJURY/ not (AUTOMUTILATION/ or BATTERED CHILD SYNDROME/ or BIRTH INJURY/ or exp "BITES AND STINGS"/ or exp DROWNING/ or exp EROSION/ or exp EXPERIMENTAL INJURY/ or exp HEART INJURY/ or IMMUNE INJURY/ or IMMUNE MEDIATED INJURY/ or MEMBRANE DAMAGE/ or PRENATAL INJURY/ or PSYCHOTRAUMA/ or exp RADIATION INJURY/ or exp REPERFUSION INJURY/ or exp RESPIRATORY TRACT INJURY/ or exp RUPTURE/ or STRANGULATION/ or SURGICAL INJURY/ or exp THERMAL INJURY/ or BITE WOUND/ or exp SURGICAL WOUND/)) and (HOSPITALIZATION/ or HOSPITAL ADMISSION/ or HOSPITALIZED ADOLESCENT/ or HOSPITALIZED CHILD/ or exp HOSPITAL/ or EMERGENCY HOSPITAL SERVICE/ or exp INTENSIVE CARE UNIT/ or REHABILITATION CENTER/)
2	(exp INJURY/ not (AUTOMUTILATION/ or BATTERED CHILD SYNDROME/ or BIRTH INJURY/ or exp "BITES AND STINGS"/ or exp DROWNING/ or exp EROSION/ or exp EXPERIMENTAL INJURY/ or exp HEART INJURY/ or IMMUNE INJURY/ or IMMUNE MEDIATED INJURY/ or MEMBRANE DAMAGE/ or PRENATAL INJURY/ or PSYCHOTRAUMA/ or exp RADIATION INJURY/ or exp REPERFUSION INJURY/ or exp RESPIRATORY TRACT INJURY/ or exp RUPTURE/ or STRANGULATION/ or SURGICAL INJURY/ or exp THERMAL INJURY/ or BITE WOUND/ or exp SURGICAL WOUND/)) and ((hospitali?ed or hospitali?tion? or ((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?)).ti,ab.
3	((hospitali?ed or hospitali?ation?) adj10 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$ or accident?)).ti,ab.
4	((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?) adj5 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$ or accident?)).ti,ab.
5	(patient? adj5 trauma\$).ti,ab.
6	(patient? adj3 (burn? or burned or fractur\$)).ti,ab.
7	wound\$ patient?.ti,ab.
8	injur\$ patient?.ti,ab.
9	accident\$ patient?.ti,ab.
10	(exp INJURY/ not (AUTOMUTILATION/ or BATTERED CHILD SYNDROME/ or BIRTH INJURY/ or exp "BITES AND STINGS"/ or exp DROWNING/ or exp EROSION/ or exp EXPERIMENTAL INJURY/ or exp HEART INJURY/ or IMMUNE INJURY/ or IMMUNE MEDIATED INJURY/ or MEMBRANE DAMAGE/ or PRENATAL INJURY/ or PSYCHOTRAUMA/ or exp RADIATION INJURY/ or exp REPERFUSION INJURY/ or exp RESPIRATORY TRACT INJURY/ or exp RUPTURE/ or STRANGULATION/ or SURGICAL INJURY/ or exp THERMAL INJURY/ or BITE WOUND/ or exp SURGICAL WOUND/)) and trauma\$.ti.
11	(exp INJURY/ not (AUTOMUTILATION/ or BATTERED CHILD SYNDROME/ or BIRTH INJURY/ or exp "BITES AND STINGS"/ or exp DROWNING/ or exp EROSION/ or exp EXPERIMENTAL INJURY/ or exp HEART INJURY/ or IMMUNE INJURY/ or IMMUNE MEDIATED INJURY/ or MEMBRANE DAMAGE/ or PRENATAL INJURY/ or PSYCHOTRAUMA/ or exp RADIATION INJURY/ or exp REPERFUSION INJURY/ or exp RESPIRATORY TRACT INJURY/ or exp RUPTURE/ or STRANGULATION/ or SURGICAL INJURY/ or exp THERMAL INJURY/ or BITE WOUND/ or exp SURGICAL WOUND/)) and trauma\$.ab. /freq=2
12	MULTIPLE TRAUMA/
13	TRAUMATOLOGY/

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
14	(trauma\$ adj5 (injur\$ or wound\$ or burn? or burned or fractur\$)).ti,ab.
15	((complex\$ or multiple or critical\$) adj3 (injur\$ or wound\$ or burn? or burned or fractur\$)).ti,ab.
16	(trauma\$ adj3 (severe or severely or major or multiple)).ti,ab.
17	((injur\$ or wound\$ or burn? or burned or fractur\$) adj2 (severe or severely or major or multiple)).ti,ab.
18	((physical\$ or body or bodily) adj3 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$)).ti,ab.
19	(acute adj1 (injur\$ or trauma\$ or wound\$ or burn? or burned or fractur\$)).ti,ab.
20	(polytrauma? or poly-trauma?).ti,ab.
21	traumatolog\$.ti,ab.
22	(ACCIDENT/ or FALLING/ or HOME ACCIDENT/ or exp OCCUPATIONAL ACCIDENT/ or TRAFFIC ACCIDENT/) and (exp INJURY/ not (AUTOMUTILATION/ or BATTERED CHILD SYNDROME/ or BIRTH INJURY/ or exp "BITES AND STINGS"/ or exp DROWNING/ or exp EROSION/ or exp EXPERIMENTAL INJURY/ or exp HEART INJURY/ or IMMUNE INJURY/ or IMMUNE MEDIATED INJURY/ or MEMBRANE DAMAGE/ or PRENATAL INJURY/ or PSYCHOTRAUMA/ or exp RADIATION INJURY/ or exp REPERFUSION INJURY/ or exp RESPIRATORY TRACT INJURY/ or exp RUPTURE/ or STRANGULATION/ or SURGICAL INJURY/ or exp THERMAL INJURY/ or BITE WOUND/ or exp SURGICAL WOUND/))
23	(ACCIDENT/ or FALLING/ or HOME ACCIDENT/ or exp OCCUPATIONAL ACCIDENT/ or TRAFFIC ACCIDENT/) and (injur\$ or wound? or trauma\$ or burn? or burned or fractur\$).ti.
24	(ACCIDENT/ or FALLING/ or HOME ACCIDENT/ or exp OCCUPATIONAL ACCIDENT/ or TRAFFIC ACCIDENT/) and (injur\$ or wound? or trauma\$ or burn? or burned or fractur\$).ab. /freq=2
25	(accident? adj5 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$)).ti,ab.
26	(accident? adj3 (serious\$ or severe or severely or major)).ti,ab.
27	(ACCIDENT/ or FALLING/ or HOME ACCIDENT/ or exp OCCUPATIONAL ACCIDENT/ or TRAFFIC ACCIDENT/) and (HOSPITALIZATION/ or HOSPITAL ADMISSION/ or HOSPITALIZED ADOLESCENT/ or HOSPITALIZED CHILD/ or exp HOSPITAL/ or EMERGENCY HOSPITAL SERVICE/ or exp INTENSIVE CARE UNIT/ or REHABILITATION CENTER)
28	(ACCIDENT/ or FALLING/ or HOME ACCIDENT/ or exp OCCUPATIONAL ACCIDENT/ or TRAFFIC ACCIDENT/) and (hospitali?ed or hospitali?tion? or ((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?))).ti,ab.
29	*SPINAL CORD INJURY/ or *SPINAL CORD COMPRESSION/
30	exp *THORAX INJURY/ or *ACUTE LUNG INJURY/ or exp *RIB FRACTURE/
31	exp *NERVE INJURY/
32	exp *AMPUTATION/ or *AMPUTE? or *LIMB SALVAGE/
33	((spinal\$ or spine? or chest? or thoracic\$ or nerve?) adj3 injur\$).ti.
34	((spinal\$ or spine?) adj3 cord? adj3 compress\$).ti.
35	((Flail\$ or stove in) adj3 chest?).ti.
36	(rib? adj3 fractur\$).ti.
37	((brachial or lumbosacral or lumba or sacral or cervical or coccygeal) adj3 plexus adj3 injur\$).ti.
38	(amputat\$ or amputee?).ti.
39	(limb? adj3 (loss or losing or lost or salvag\$ or re-construct\$ or reconstruct\$)).ti.
40	*HEAD INJURY/
41	(head adj3 injur\$).ti.
42	or/1-41
43	exp BRAIN INJURY/
44	(brain adj3 injur\$).ti,ab.
45	or/43-44
46	42 not 45
47	DEVICES/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
48	GENERAL DEVICE/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
49	EQUIPMENT DESIGN/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
50	ENVIRONMENTAL PLANNING/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
51	ERGONOMICS/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
52	SELF HELP DEVICE/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
53	ASSISTIVE TECHNOLOGY DEVICE/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
54	ENVIRONMENTAL CONTROL UNIT/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
55	COMMUNICATION AID/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
56	((adapt\$ or modif\$) adj3 equipment).ti,ab.
57	(equipment adj10 daily adj3 living).ti,ab.
58	(equipment adj5 participat\$).ti,ab.
59	(equipment adj5 independen\$).ti,ab.
60	(ergonomic? adj10 daily adj3 living).ti,ab.
61	(ergonomic? adj5 participat\$).ti,ab.
62	(ergonomic? adj5 independen\$).ti,ab.

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
63	(aid? adj3 daily adj3 living).ti,ab.
64	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj10 daily adj3 living).ti,ab.
65	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj5 participat\$).ti,ab.
66	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj5 independen\$).ti,ab.
67	(environment\$ adj3 control\$ adj10 daily adj3 living).ti,ab.
68	(environment\$ adj3 control\$ adj5 participat\$).ti,ab.
69	(environment\$ adj3 control\$ adj5 independen\$).ti,ab.
70	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or (curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 daily adj3 living).ti,ab.
71	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or (curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 (social\$ or communit\$) adj3 participat\$).ti,ab.
72	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or (curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 independen\$ adj3 (live? or living patient?)).ti,ab.
73	((car or cars or vehicle?) adj3 adapt\$).ti,ab.
74	or/47-73
75	(instrumental adj3 activit\$ adj3 daily adj3 living adj10 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
76	OCCUPATIONAL THERAPY/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
77	KINESIOTHERAPY/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
78	(activit\$ adj3 daily adj3 living adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
79	(independen\$ adj3 (live? or living or patient?) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
80	((social\$ or communit\$) adj3 participat\$ adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
81	((shop\$ or laundry or cook\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
82	(manag\$ adj3 (money or finance? or bank\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
83	or/75-82
84	(advanced adj3 activit\$ adj3 daily adj3 living adj10 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
85	OCCUPATIONAL THERAPY/ and (LEISURE ACTIVITIES/ or RECREATION/)
86	RECREATIONAL THERAPY/
87	((leisure or recreation\$ or hobb\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
88	(sport? adj3 therap\$).ti,ab.
89	or/84-88
90	exp WHEELCHAIR/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
91	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj10 daily adj3 living).ti,ab.
92	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj5 participat\$).ti,ab.
93	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj5 independen\$).ti,ab.
94	or/90-93
95	*VIOLENCE/pc [Prevention]
96	*VIOLENCE/ and RISK ASSESSMENT/
97	((violen\$ or crime? or gun? or knife? or knifing? or stabbed or stabbing?) adj3 (intervention? or program\$ or project? or support\$ or charit\$)).ti,ab.
98	Redthread.ti,ab.
99	St Giles Trust.ti,ab.
100	or/95-99
101	((adolescenc\$ or teen\$ or youth\$ or juvenile? or minors or child\$ or schoolchild\$ or "school age" or "school aged" or preschool\$ or toddler\$ or kid? or boy? or girl? or infan\$ or neonat\$ or newborn\$ or baby or babies) adj10 (toilet\$ or feed\$ or sleep\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
102	learn\$ through play\$.ti,ab.
103	or/101-102
104	PLAY THERAPY/
105	(play\$ adj3 therap\$).ti,ab.
106	or/104-105
107	(SCHOOL/ or HIGH SCHOOL/ or KINDERGARTEN/ or MIDDLE SCHOOL/ or NURSERY SCHOOL/ or PRIMARY SCHOOL/) and (DEVICES/ or GENERAL DEVICE/ or EQUIPMENT DESIGN/ or ENVIRONMENTAL PLANNING/ or

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
	ERGONOMICS/ or SELF HELP DEVICE/ or ASSISTIVE TECHNOLOGY DEVICE/ or ENVIRONMENTAL CONTROL UNIT/ or COMMUNICATION AID/ or exp WHEELCHAIR/)
108	((school\$ or nursery or nurseries or kindergarten?) adj5 (equipment or ergonomic\$)).ti,ab.
109	((school\$ or nursery or nurseries or kindergarten?) adj5 (assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?)).ti,ab.
110	((school\$ or nursery or nurseries or kindergarten?) adj5 environment\$ adj3 control\$).ti,ab.
111	((school\$ or nursery or nurseries or kindergarten?) adj5 (wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?)).ti,ab.
112	or/107-111
113	46 and 74
114	46 and 83
115	46 and 89
116	46 and 94
117	46 and 100
118	46 and 103
119	46 and 106
120	46 and 112
121	or/113-120
122	limit 121 to english language
123	limit 122 to yr="1995 -Current"
124	letter.pt. or LETTER/
125	note.pt.
126	editorial.pt.
127	CASE REPORT/ or CASE STUDY/
128	(letter or comment*).ti.
129	or/124-128
130	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
131	129 not 130
132	ANIMAL/ not HUMAN/
133	NONHUMAN/
134	exp ANIMAL EXPERIMENT/
135	exp EXPERIMENTAL ANIMAL/
136	ANIMAL MODEL/
137	exp RODENT/
138	(rat or rats or mouse or mice).ti.
139	or/131-138
140	123 not 139

Databases: Cochrane Central Register of Controlled Trials; and Cochrane Database of Systematic Reviews

Date of last search: 10/02/2020

#	Searches
#1	([mh "WOUNDS AND INJURIES"] not ([mh ^ASPHYXIA] or [mh ^"BATTERED CHILD SYNDROME"] or [mh "BIRTH INJURIES"] or [mh "BITES AND STINGS"] or [mh DROWNING] or [mh ^"EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"] or [mh ^FROSTBITE] or [mh "HEAT STRESS DISORDERS"] or [mh "RADIATION INJURIES"] or [mh ^RETROPNEUMOPERITONEUM] or [mh ^"SURGICAL WOUND"])))
#2	([mh ^HOSPITALIZATION] or [mh ^"PATIENT ADMISSION"] or [mh ^"ADOLESCENT, HOSPITALIZED"] or [mh ^"CHILD, HOSPITALIZED"] or [mh HOSPITALS] or [mh "EMERGENCY SERVICE, HOSPITAL"] or [mh "INTENSIVE CARE UNITS"] or [mh ^"REHABILITATION CENTERS"])
#3	#1 and #2
#4	(hospitalised or hospitalized or hospitalistion* or hospitaliztion* or ((admi* or stay* or stayed or treat* or present*) near/5 (hospital* or unit* or "intensive care" or ICU* or PICU* or NICU* or department* or centre* or center*)):ti,ab
#5	#1 and #4
#6	((hospitalised or hospitalized or hospitalistion* or hospitaliztion*) near/10 (injur* or wound* or trauma* or burn* or burned or fractur* or accident*)):ti,ab
#7	((admi* or stay* or stayed or treat* or present*) near/5 (hospital* or unit* or "intensive care" or ICU* or PICU* or NICU* or department* or centre* or center*) near/5 (injur* or wound* or trauma* or burn* or burned or fractur* or accident*)):ti,ab
#8	(patient* near/5 trauma*):ti,ab
#9	(patient* near/3 (burn* or burned or fractur*)):ti,ab
#10	"wound* patient*":ti,ab
#11	"injur* patient*":ti,ab
#12	"accident* patient*":ti,ab
#13	trauma*:ti,ab
#14	#1 and #13

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
#15	[mh "MULTIPLE TRAUMA"]
#16	[mh ^TRAUMATOLOGY]
#17	(trauma* near/5 (injur* or wound* or burn* or burned or fractur*)):ti,ab
#18	((complex* or multiple or critical*) near/3 (injur* or wound* or burn* or burned or fractur*)):ti,ab
#19	(trauma* near/3 (severe or severely or major or multiple)):ti,ab
#20	((injur* or wound* or burn* or burned or fractur*) near/2 (severe or severely or major or multiple)):ti,ab
#21	((physical* or body or bodily) near/3 (injur* or wound* or trauma* or burn* or burned or fractur*)):ti,ab
#22	(acute near/1 (injur* or trauma* or wound* or burn* or burned or fractur*)):ti,ab
#23	(polytrauma* or poly-trauma*):ti,ab
#24	traumatolog*:ti,ab
#25	([mh ^ACCIDENTS] or [mh ^"ACCIDENTAL FALLS"] or [mh ^"ACCIDENTS, HOME"] or [mh ^"ACCIDENTS, OCCUPATIONAL"] or [mh ^"ACCIDENTS, TRAFFIC"])
#26	#1 and #25
#27	(injur* or wound* or trauma* or burn* or burned or fractur*):ti,ab
#28	#25 and #27
#29	(accident* near/5 (injur* or wound* or trauma* or burn* or burned or fractur*)):ti,ab
#30	(accident* near/3 (serious* or severe or severely or major)):ti,ab
#31	#2 and #25
#32	(hospitalised or hospitalized or hospitalistion* or hospitalization* or ((admi* or stay* or stayed or treat* or present*) near/5 (hospital* or unit* or intensive care or ICU* or PICU* or NICU* or department* or centre* or center*)):ti,ab
#33	#25 and #32
#34	[mh ^"SPINAL CORD INJURIES"] or [mh ^"SPINAL CORD COMPRESSION"]
#35	[mh "THORACIC INJURIES"] or [mh ^"ACUTE LUNG INJURY"]
#36	[mh ^"PERIPHERAL NERVE INJURIES"] or [mh "CRANIAL NERVE INJURIES"]
#37	[mh AMPUTATION] or [mh ^"AMPUTATION, TRAUMATIC"] or [mh ^AMPUTEES] or [mh ^"AMPUTATION STUMPS"] or [mh ^"LIMB SALVAGE"]
#38	((spinal* or spine* or chest* or thoracic* or nerve*) near/3 injur*):ti
#39	((spinal* or spine*) near/3 cord* near/3 compress*):ti
#40	((Flail* or stove in) near/3 chest*):ti
#41	(rib* near/3 fractur*):ti
#42	((brachial or lumbosacral or lumba or sacral or cervical or coccygeal) near/3 plexus near/3 injur*):ti
#43	(amputat* or amputee*):ti
#44	(limb* near/3 (loss or losing or lost or salvag* or re-construct* or reconstruct*)):ti
#45	[mh ^"HEAD INJURIES, CLOSED"] or [mh ^"HEAD INJURIES, PENETRATING"]
#46	(head near/3 injur*):ti
#47	#3 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #26 or #28 or #29 or #30 or #31 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46
#48	[mh "BRAIN INJURIES"]
#49	(brain near/3 injur*):ti,ab
#50	#48 or #49
#51	#47 not #50
#52	[mh ^"EQUIPMENT AND SUPPLIES"] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#53	[mh ^"EQUIPMENT DESIGN"] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#54	[mh ^"ENVIRONMENT DESIGN"] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#55	[mh ^ERGONOMICS] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#56	[mh ^"SELF-HELP DEVICES"] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#57	[mh ^"COMMUNICATION AIDS FOR DISABLED"] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#58	((adapt* or modif*) near/3 equipment):ti,ab
#59	(equipment near/10 daily near/3 living):ti,ab
#60	(equipment near/5 participat*):ti,ab
#61	(equipment near/5 independen*):ti,ab
#62	(ergonomic* near/10 daily near/3 living):ti,ab
#63	(ergonomic* near/5 participat*):ti,ab
#64	(ergonomic* near/5 independen*):ti,ab
#65	(aid* near/3 daily near/3 living):ti,ab
#66	((assist* or self help or selfhelp) near/3 (device* or technolog* or aid*) near/10 daily near/3 living):ti,ab
#67	((assist* or self help or selfhelp) near/3 (device* or technolog* or aid*) near/5 participat*):ti,ab
#68	((assist* or self help or selfhelp) near/3 (device* or technolog* or aid*) near/5 independen*):ti,ab
#69	(environment* near/3 control* near/10 daily near/3 living):ti,ab
#70	(environment* near/3 control* near/5 participat*):ti,ab
#71	(environment* near/3 control* near/5 independen*):ti,ab
#72	((brace* or collar or special* bed* or sleep* system* or single access system* or communication board* or communication aid* or bell* or intercom* or alarm* or pager* or telephone* or phone* or smartphone* or app* or

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Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
	tablet* or television* or TV or TVs or stereo* or radio* or light* or lamp* or fan* or (door* near/3 (releas* or open*)) or (curtain* near/3 open*) or (window* near/3 open*) or (page* near/3 turn*) or telecare equipment or computer* or keyboard* or mouse or joystick* or roller ball* or eye gaze or software or ((wash* or dress*) near/3 aid*) or special* grip* or handle*) near/10 daily near/3 living):ti,ab
#73	((brace* or collar or special* bed* or sleep* system* or single access system* or communication board* or communication aid* or bell* or intercom* or alarm* or pager* or telephone* or phone* or smartphone* or app* or tablet* or television* or TV or TVs or stereo* or radio* or light* or lamp* or fan* or (door* near/3 (releas* or open*)) or (curtain* near/3 open*) or (window* near/3 open*) or (page* near/3 turn*) or telecare equipment or computer* or keyboard* or mouse or joystick* or roller ball* or eye gaze or software or ((wash* or dress*) near/3 aid*) or special* grip* or handle*) near/10 (social* or communit*) near/3 participat*):ti,ab
#74	((brace* or collar or special* bed* or sleep* system* or single access system* or communication board* or communication aid* or bell* or intercom* or alarm* or pager* or telephone* or phone* or smartphone* or app* or tablet* or television* or TV or TVs or stereo* or radio* or light* or lamp* or fan* or (door* near/3 (releas* or open*)) or (curtain* near/3 open*) or (window* near/3 open*) or (page* near/3 turn*) or telecare equipment or computer* or keyboard* or mouse or joystick* or roller ball* or eye gaze or software or ((wash* or dress*) near/3 aid*) or special* grip* or handle*) near/10 independen* near/3 (live* or living patient*):ti,ab
#75	((car or cars or vehicle*) near/3 adapt*):ti,ab
#76	#52 or #53 or #54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75
#77	(instrumental near/3 activit* near/3 daily near/3 living near/10 (intervention* or treatment* or program* or rehab* or therap*)):ti,ab
#78	[mh ^"OCCUPATIONAL THERAPY"] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#79	[mh ^"EXERCISE THERAPY"] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#80	(activit* near/3 daily near/3 living near/5 (intervention* or treatment* or program* or rehab* or therap*)):ti,ab
#81	(independen* near/3 (live* or living or patient*) near/5 (intervention* or treatment* or program* or rehab* or therap*)):ti,ab
#82	((social* or communit*) near/3 participat* near/5 (intervention* or treatment* or program* or rehab* or therap*)):ti,ab
#83	((shop* or laundry or cook*) near/5 (intervention* or treatment* or program* or rehab* or therap*)):ti,ab
#84	(manag* near/3 (money or finance* or bank*) near/5 (intervention* or treatment* or program* or rehab* or therap*)):ti,ab
#85	#77 or #78 or #79 or #80 or #81 or #82 or #83 or #84
#86	(advanced near/3 activit* near/3 daily near/3 living near/10 (intervention* or treatment* or program* or rehab* or therap*)):ti,ab
#87	[mh ^"OCCUPATIONAL THERAPY"] and ([mh ^"LEISURE ACTIVITIES"] or [mh ^"RECREATION"] or [mh ^"HOBBIES"] or [mh ^"SPORTS"] or [mh ^"PLAY AND PLAYTHINGS"])
#88	[mh ^"RECREATION THERAPY"]
#89	((leisure or recreation* or hobb*) near/5 (intervention* or treatment* or program* or rehab* or therap*)):ti,ab
#90	(sport* near/3 therap*):ti,ab
#91	#86 or #87 or #88 or #89 or #90
#92	[mh ^"WHEELCHAIRS"] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#93	((wheel chair* or wheelchair* or power* chair* or powerchair* or seat* or chair*) near/10 daily near/3 living):ti,ab
#94	((wheel chair* or wheelchair* or power* chair* or powerchair* or seat* or chair*) near/5 participat*):ti,ab
#95	((wheel chair* or wheelchair* or power* chair* or powerchair* or seat* or chair*) near/5 independen*):ti,ab
#96	#92 or #93 or #94 or #95
#97	[mh ^"VIOLENCE/pc]
#98	[mh ^"VIOLENCE"] and [mh ^"RISK ASSESSMENT"]
#99	((violen* or crime* or gun* or knife* or knifing* or stabbed or stabbing*) near/3 (intervention* or program* or project* or support* or charit*)):ti,ab
#100	Redthread:ti,ab
#101	St Giles Trust:ti,ab
#102	#97 or #98 or #99 or #100 or #101
#103	((adolescen* or teen* or youth* or juvenile* or minors or child* or schoolchild* or "school age" or "school aged" or preschool* or toddler* or kid* or boy* or girl* or infan* or neonat* or newborn* or baby or babies) near/10 (toilet* or feed* or sleep*) near/5 (intervention* or treatment* or program* or rehab* or therap*)):ti,ab
#104	learn* through play*:ti,ab
#105	#103 or #104
#106	[mh ^"PLAY THERAPY"]
#107	(play* near/3 therap*):ti,ab
#108	#106 or #107
#109	([mh ^"SCHOOLS"] or [mh ^"SCHOOLS, NURSERY"] or [mh ^"NURSERIES"] or [mh ^"CHILD DAY CARE CENTERS"]) and ([mh ^"EQUIPMENT DESIGN"] or [mh ^"ENVIRONMENT DESIGN"] or [mh ^"ERGONOMICS"] or [mh ^"SELF-HELP DEVICES"] or [mh ^"COMMUNICATION AIDS FOR DISABLED"] or [mh ^"WHEELCHAIRS"])
#110	((school* or nursery or nurseries or kindergarten*) near/5 (equipment or ergonomic*)):ti,ab
#111	((school* or nursery or nurseries or kindergarten*) near/5 (assist* or self help or selfhelp) near/3 (device* or technolog* or aid*)):ti,ab
#112	((school* or nursery or nurseries or kindergarten*) near/5 environment* near/3 control*):ti,ab
#113	((school* or nursery or nurseries or kindergarten*) near/5 (wheel chair* or wheelchair* or power* chair* or powerchair* or seat* or chair*)):ti,ab

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Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
#114	#109 or #110 or #111 or #112 or #113
#115	#51 and #76
#116	#51 and #85
#117	#51 and #91
#118	#51 and #96
#119	#51 and #102
#120	#51 and #105
#121	#51 and #108
#122	#51 and #114
#123	#115 or #116 or #117 or #118 or #119 or #120 or #121 or #122
#124	#115 or #116 or #117 or #118 or #119 or #120 or #121 or #122 with Cochrane Library publication date Between Jan 2000 and Feb 2020, in Cochrane Reviews
#125	#115 or #116 or #117 or #118 or #119 or #120 or #121 or #122 with Publication Year from 2000 to 2020, in Trials

Health economics search strategies

Databases: Medline; Medline Epub Ahead of Print; and Medline In-Process & Other Non-Indexed Citations

Date of last search: 25/02/2020

#	Searches
1	ECONOMICS/
2	VALUE OF LIFE/
3	exp "COSTS AND COST ANALYSIS"/
4	exp ECONOMICS, HOSPITAL/
5	exp ECONOMICS, MEDICAL/
6	exp RESOURCE ALLOCATION/
7	ECONOMICS, NURSING/
8	ECONOMICS, PHARMACEUTICAL/
9	exp "FEES AND CHARGES"/
10	exp BUDGETS/
11	budget*.ti,ab.
12	cost*.ti,ab.
13	(economic* or pharmaco?economic*).ti,ab.
14	(price* or pricing*).ti,ab.
15	(financ* or fee or fees or expenditure* or saving*).ti,ab.
16	(value adj2 (money or monetary)).ti,ab.
17	resourc* allocat*.ti,ab.
18	(fund or funds or funding* or funded).ti,ab.
19	(ration or rations or rationing* or rationed).ti,ab.
20	ec.fs.
21	or/1-20
22	(exp "WOUNDS AND INJURIES"/ not (ASPHYXIA/ or BATTERED CHILD SYNDROME/ or exp BIRTH INJURIES/ or exp "BITES AND STINGS"/ or exp DROWNING/ or "EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"/ or exp FROSTBITE/ or exp HEAT STRESS DISORDERS/ or exp RADIATION INJURIES/ or RETROPNEUMOPERITONEUM/ or SURGICAL WOUND/)) and (HOSPITALIZATION/ or PATIENT ADMISSION/ or ADOLESCENT, HOSPITALIZED/ or CHILD, HOSPITALIZED/ or exp HOSPITALS/ or exp EMERGENCY SERVICE, HOSPITAL/ or exp INTENSIVE CARE UNITS/ or REHABILITATION CENTERS/)
23	(exp "WOUNDS AND INJURIES"/ not (ASPHYXIA/ or BATTERED CHILD SYNDROME/ or exp BIRTH INJURIES/ or exp "BITES AND STINGS"/ or exp DROWNING/ or "EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"/ or exp FROSTBITE/ or exp HEAT STRESS DISORDERS/ or exp RADIATION INJURIES/ or RETROPNEUMOPERITONEUM/ or SURGICAL WOUND/)) and (hospitali?ed or hospitali?tion? or ((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?)))ti,ab.
24	((hospitali?ed or hospitali?ation?) adj10 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$ or accident?))ti,ab.
25	((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?) adj5 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$ or accident?))ti,ab.
26	(patient? adj5 trauma\$.ti,ab.
27	(patient? adj3 (burn? or burned or fractur\$)).ti,ab.
28	wound\$ patient?.ti,ab.
29	injur\$ patient?.ti,ab.
30	accident\$ patient?.ti,ab.
31	(exp "WOUNDS AND INJURIES"/ not (ASPHYXIA/ or BATTERED CHILD SYNDROME/ or exp BIRTH INJURIES/ or

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Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
	exp "BITES AND STINGS"/ or exp DROWNING/ or "EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"/ or exp FROSTBITE/ or exp HEAT STRESS DISORDERS/ or exp RADIATION INJURIES/ or RETROPNEUMOPERITONEUM/ or SURGICAL WOUND/) and trauma\$.ti.
32	(exp "WOUNDS AND INJURIES"/ not (ASPHYXIA/ or BATTERED CHILD SYNDROME/ or exp BIRTH INJURIES/ or exp "BITES AND STINGS"/ or exp DROWNING/ or "EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"/ or exp FROSTBITE/ or exp HEAT STRESS DISORDERS/ or exp RADIATION INJURIES/ or RETROPNEUMOPERITONEUM/ or SURGICAL WOUND/)) and trauma\$.ab. /freq=2
33	exp MULTIPLE TRAUMA/
34	TRAUMATOLOGY/
35	(trauma\$ adj5 (injur\$ or wound\$ or burn? or burned or fractur\$)).ti,ab.
36	((complex\$ or multiple or critical\$) adj3 (injur\$ or wound\$ or burn? or burned or fractur\$)).ti,ab.
37	(trauma\$ adj3 (severe or severely or major or multiple)).ti,ab.
38	((injur\$ or wound\$ or burn? or burned or fractur\$) adj2 (severe or severely or major or multiple)).ti,ab.
39	((physical\$ or body or bodily) adj3 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$)).ti,ab.
40	(acute adj1 (injur\$ or trauma\$ or wound\$ or burn? or burned or fractur\$)).ti,ab.
41	(polytrauma? or poly-trauma?).ti,ab.
42	traumatolog\$.ti,ab.
43	(ACCIDENTS/ or ACCIDENTAL FALLS/ or ACCIDENTS, HOME/ or ACCIDENTS, OCCUPATIONAL/ or ACCIDENTS, TRAFFIC/) and (exp "*"WOUNDS AND INJURIES"/ not (ASPHYXIA/ or BATTERED CHILD SYNDROME/ or exp BIRTH INJURIES/ or exp "BITES AND STINGS"/ or exp DROWNING/ or "EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"/ or exp FROSTBITE/ or exp HEAT STRESS DISORDERS/ or exp RADIATION INJURIES/ or RETROPNEUMOPERITONEUM/ or SURGICAL WOUND/))
44	(ACCIDENTS/ or ACCIDENTAL FALLS/ or ACCIDENTS, HOME/ or ACCIDENTS, OCCUPATIONAL/ or ACCIDENTS, TRAFFIC/) and (injur\$ or wound? or trauma\$ or burn? or burned or fractur\$).ti.
45	(ACCIDENTS/ or ACCIDENTAL FALLS/ or ACCIDENTS, HOME/ or ACCIDENTS, OCCUPATIONAL/ or ACCIDENTS, TRAFFIC/) and (injur\$ or wound? or trauma\$ or burn? or burned or fractur\$).ab. /freq=2
46	(accident? adj5 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$)).ti,ab.
47	(accident? adj3 (serious\$ or severe or severely or major)).ti,ab.
48	(ACCIDENTS/ or ACCIDENTAL FALLS/ or ACCIDENTS, HOME/ or ACCIDENTS, OCCUPATIONAL/ or ACCIDENTS, TRAFFIC/) and (HOSPITALIZATION/ or PATIENT ADMISSION/ or ADOLESCENT, HOSPITALIZED/ or CHILD, HOSPITALIZED/ or exp HOSPITALS/ or exp EMERGENCY SERVICE, HOSPITAL/ or exp INTENSIVE CARE UNITS/ or REHABILITATION CENTERS/)
49	(ACCIDENTS/ or ACCIDENTAL FALLS/ or ACCIDENTS, HOME/ or ACCIDENTS, OCCUPATIONAL/ or ACCIDENTS, TRAFFIC/) and (hospitali?ed or hospitali?tion? or ((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?))).ti,ab.
50	*SPINAL CORD INJURIES/ or *SPINAL CORD COMPRESSION/
51	exp *THORACIC INJURIES/ or *ACUTE LUNG INJURY/
52	*PERIPHERAL NERVE INJURIES/ or exp *CRANIAL NERVE INJURIES/
53	exp *AMPUTATION/ or *AMPUTATION, TRAUMATIC/ or *AMPUTEES/ or *AMPUTATION STUMPS/ or *LIMB SALVAGE/
54	((spinal\$ or spine? or chest? or thoracic\$ or nerve?) adj3 injur\$).ti.
55	((spinal\$ or spine?) adj3 cord? adj3 compress\$).ti.
56	((Flail\$ or stove in) adj3 chest?).ti.
57	(rib? adj3 fractur\$).ti.
58	((brachial or lumbosacral or lumba or sacral or cervical or coccygeal) adj3 plexus adj3 injur\$).ti.
59	(amputat\$ or amputee?).ti.
60	(limb? adj3 (loss or losing or lost or salvag\$ or re-construct\$ or reconstruct\$)).ti.
61	*HEAD INJURIES, CLOSED/ or *HEAD INJURIES, PENETRATING/
62	(head adj3 injur\$).ti.
63	or/22-62
64	exp BRAIN INJURIES/
65	(brain adj3 injur\$).ti,ab.
66	or/64-65
67	63 not 66
68	"EQUIPMENT AND SUPPLIES"/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
69	EQUIPMENT DESIGN/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
70	ENVIRONMENT DESIGN/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
71	ERGONOMICS/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
72	SELF-HELP DEVICES/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
73	COMMUNICATION AIDS FOR DISABLED/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
74	((adapt\$ or modif\$) adj3 equipment).ti,ab.
75	(equipment adj10 daily adj3 living).ti,ab.
76	(equipment adj5 participat\$).ti,ab.
77	(equipment adj5 independen\$).ti,ab.
78	(ergonomic? adj10 daily adj3 living).ti,ab.

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Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
79	(ergonomic? adj5 participat\$.ti,ab.
80	(ergonomic? adj5 independen\$.ti,ab.
81	(aid? adj3 daily adj3 living).ti,ab.
82	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj10 daily adj3 living).ti,ab.
83	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj5 participat\$.ti,ab.
84	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj5 independen\$.ti,ab.
85	(environment\$ adj3 control\$ adj10 daily adj3 living).ti,ab.
86	(environment\$ adj3 control\$ adj5 participat\$.ti,ab.
87	(environment\$ adj3 control\$ adj5 independen\$.ti,ab.
88	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or (curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 daily adj3 living).ti,ab.
89	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or (curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 (social\$ or communit\$) adj3 participat\$.ti,ab.
90	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or (curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 independen\$ adj3 (live? or living patient?).ti,ab.
91	((car or cars or vehicle?) adj3 adapt\$.ti,ab.
92	or/68-91
93	(instrumental adj3 activit\$ adj3 daily adj3 living adj10 (intervention? or treatment? or program\$ or rehab\$ or therap\$).ti,ab.
94	OCCUPATIONAL THERAPY/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
95	EXERCISE THERAPY/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
96	(activit\$ adj3 daily adj3 living adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$).ti,ab.
97	(independen\$ adj3 (live? or living or patient?) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$).ti,ab.
98	((social\$ or communit\$) adj3 participat\$ adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$).ti,ab.
99	((shop\$ or laundry or cook\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$).ti,ab.
100	(manag\$ adj3 (money or finance? or bank\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$).ti,ab.
101	or/93-100
102	(advanced adj3 activit\$ adj3 daily adj3 living adj10 (intervention? or treatment? or program\$ or rehab\$ or therap\$).ti,ab.
103	OCCUPATIONAL THERAPY/ and (LEISURE ACTIVITIES/ or RECREATION/ or HOBBIES/ or exp SPORTS/ or "PLAY AND PLAYTHINGS"/)
104	RECREATION THERAPY/
105	((leisure or recreation\$ or hobb\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$).ti,ab.
106	(sport? adj3 therap\$).ti,ab.
107	or/102-106
108	WHEELCHAIRS/ and (ACTIVITIES OF DAILY LIVING/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/)
109	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj10 daily adj3 living).ti,ab.
110	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj5 participat\$.ti,ab.
111	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj5 independen\$.ti,ab.
112	or/108-111
113	*VIOLENCE/pc [Prevention & Control]
114	*VIOLENCE/ and RISK ASSESSMENT/
115	((violen\$ or crime? or gun? or knife? or knifing? or stabbed or stabbing?) adj3 (intervention? or program\$ or project? or support\$ or charit\$).ti,ab.
116	Redthread.ti,ab.
117	St Giles Trust.ti,ab.
118	or/113-117
119	((adolescenc\$ or teen\$ or youth\$ or juvenile? or minors or child\$ or schoolchild\$ or "school age" or "school aged" or preschool\$ or toddler\$ or kid? or boy? or girl? or infan\$ or neonat\$ or newborn\$ or baby or babies) adj10 (toilet\$ or feed\$ or sleep\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$).ti,ab.
120	learn\$ through play\$.ti,ab.
121	or/119-120
122	PLAY THERAPY/
123	(play\$ adj3 therap\$).ti,ab.

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
124	or/122-123
125	(SCHOOLS/ or SCHOOLS, NURSERY/ or NURSERIES/ or CHILD DAY CARE CENTERS/) and (EQUIPMENT DESIGN/ or ENVIRONMENT DESIGN/ or ERGONOMICS/ or SELF-HELP DEVICES/ or COMMUNICATION AIDS FOR DISABLED/ or WHEELCHAIRS/)
126	((school\$ or nursery or nurseries or kindergarten?) adj5 (equipment or ergonomic\$)).ti,ab.
127	((school\$ or nursery or nurseries or kindergarten?) adj5 (assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?)).ti,ab.
128	((school\$ or nursery or nurseries or kindergarten?) adj5 environment\$ adj3 control\$).ti,ab.
129	((school\$ or nursery or nurseries or kindergarten?) adj5 (wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?)).ti,ab.
130	or/125-129
131	67 and 92
132	67 and 101
133	67 and 107
134	67 and 112
135	67 and 118
136	67 and 121
137	67 and 124
138	67 and 130
139	or/131-138
140	limit 139 to english language
141	limit 140 to yr="1995 -Current"
142	LETTER/
143	EDITORIAL/
144	NEWS/
145	exp HISTORICAL ARTICLE/
146	ANECDOTES AS TOPIC/
147	COMMENT/
148	CASE REPORT/
149	(letter or comment*).ti.
150	or/142-149
151	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
152	150 not 151
153	ANIMALS/ not HUMANS/
154	exp ANIMALS, LABORATORY/
155	exp ANIMAL EXPERIMENTATION/
156	exp MODELS, ANIMAL/
157	exp RODENTIA/
158	(rat or rats or mouse or mice).ti.
159	or/152-158
160	141 not 159
161	21 and 160

Databases: Embase; and Embase Classic

Date of last search: 25/02/2020

#	Searches
1	HEALTH ECONOMICS/
2	exp ECONOMIC EVALUATION/
3	exp HEALTH CARE COST/
4	exp FEE/
5	BUDGET/
6	FUNDING/
7	RESOURCE ALLOCATION/
8	budget*.ti,ab.
9	cost*.ti,ab.
10	(economic* or pharmaco?economic*).ti,ab.
11	(price* or pricing*).ti,ab.
12	(financ* or fee or fees or expenditure* or saving*).ti,ab.
13	(value adj2 (money or monetary)).ti,ab.
14	resourc* allocat*.ti,ab.
15	(fund or funds or funding* or funded).ti,ab.
16	(ration or rations or rationing* or rationed).ti,ab.
17	or/1-16
18	(exp INJURY/ not (AUTOMUTILATION/ or BATTERED CHILD SYNDROME/ or BIRTH INJURY/ or exp "BITES AND STINGS"/ or exp DROWNING/ or exp EROSION/ or exp EXPERIMENTAL INJURY/ or exp HEART INJURY/ or

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
	IMMUNE INJURY/ or IMMUNE MEDIATED INJURY/ or MEMBRANE DAMAGE/ or PRENATAL INJURY/ or PSYCHOTRAUMA/ or exp RADIATION INJURY/ or exp REPERFUSION INJURY/ or exp RESPIRATORY TRACT INJURY/ or exp RUPTURE/ or STRANGULATION/ or SURGICAL INJURY/ or exp THERMAL INJURY/ or BITE WOUND/ or exp SURGICAL WOUND/) and (HOSPITALIZATION/ or HOSPITAL ADMISSION/ or HOSPITALIZED ADOLESCENT/ or HOSPITALIZED CHILD/ or exp HOSPITAL/ or EMERGENCY HOSPITAL SERVICE/ or exp INTENSIVE CARE UNIT/ or REHABILITATION CENTER/)
19	(exp INJURY/ not (AUTOMUTILATION/ or BATTERED CHILD SYNDROME/ or BIRTH INJURY/ or exp "BITES AND STINGS"/ or exp DROWNING/ or exp EROSION/ or exp EXPERIMENTAL INJURY/ or exp HEART INJURY/ or IMMUNE INJURY/ or IMMUNE MEDIATED INJURY/ or MEMBRANE DAMAGE/ or PRENATAL INJURY/ or PSYCHOTRAUMA/ or exp RADIATION INJURY/ or exp REPERFUSION INJURY/ or exp RESPIRATORY TRACT INJURY/ or exp RUPTURE/ or STRANGULATION/ or SURGICAL INJURY/ or exp THERMAL INJURY/ or BITE WOUND/ or exp SURGICAL WOUND/) and (hospitali?ed or hospitali?tion? or ((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?)).ti,ab.
20	((hospitali?ed or hospitali?ation?) adj10 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$ or accident?)).ti,ab.
21	((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?) adj5 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$ or accident?)).ti,ab.
22	(patient? adj5 trauma\$).ti,ab.
23	(patient? adj3 (burn? or burned or fractur\$)).ti,ab.
24	wound\$ patient?.ti,ab.
25	injur\$ patient?.ti,ab.
26	accident\$ patient?.ti,ab.
27	(exp INJURY/ not (AUTOMUTILATION/ or BATTERED CHILD SYNDROME/ or BIRTH INJURY/ or exp "BITES AND STINGS"/ or exp DROWNING/ or exp EROSION/ or exp EXPERIMENTAL INJURY/ or exp HEART INJURY/ or IMMUNE INJURY/ or IMMUNE MEDIATED INJURY/ or MEMBRANE DAMAGE/ or PRENATAL INJURY/ or PSYCHOTRAUMA/ or exp RADIATION INJURY/ or exp REPERFUSION INJURY/ or exp RESPIRATORY TRACT INJURY/ or exp RUPTURE/ or STRANGULATION/ or SURGICAL INJURY/ or exp THERMAL INJURY/ or BITE WOUND/ or exp SURGICAL WOUND/) and trauma\$.ti
28	(exp INJURY/ not (AUTOMUTILATION/ or BATTERED CHILD SYNDROME/ or BIRTH INJURY/ or exp "BITES AND STINGS"/ or exp DROWNING/ or exp EROSION/ or exp EXPERIMENTAL INJURY/ or exp HEART INJURY/ or IMMUNE INJURY/ or IMMUNE MEDIATED INJURY/ or MEMBRANE DAMAGE/ or PRENATAL INJURY/ or PSYCHOTRAUMA/ or exp RADIATION INJURY/ or exp REPERFUSION INJURY/ or exp RESPIRATORY TRACT INJURY/ or exp RUPTURE/ or STRANGULATION/ or SURGICAL INJURY/ or exp THERMAL INJURY/ or BITE WOUND/ or exp SURGICAL WOUND/) and trauma\$.ab. /freq=2
29	MULTIPLE TRAUMA/
30	TRAUMATOLOGY/
31	(trauma\$ adj5 (injur\$ or wound\$ or burn? or burned or fractur\$)).ti,ab.
32	((complex\$ or multiple or critical\$) adj3 (injur\$ or wound\$ or burn? or burned or fractur\$)).ti,ab.
33	(trauma\$ adj3 (severe or severely or major or multiple)).ti,ab.
34	((injur\$ or wound\$ or burn? or burned or fractur\$) adj2 (severe or severely or major or multiple)).ti,ab.
35	((physical\$ or body or bodily) adj3 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$)).ti,ab.
36	(acute adj1 (injur\$ or trauma\$ or wound\$ or burn? or burned or fractur\$)).ti,ab.
37	(polytrauma? or poly-trauma?).ti,ab.
38	traumatolog\$.ti,ab.
39	(ACCIDENT/ or FALLING/ or HOME ACCIDENT/ or exp OCCUPATIONAL ACCIDENT/ or TRAFFIC ACCIDENT/) and (exp INJURY/ not (AUTOMUTILATION/ or BATTERED CHILD SYNDROME/ or BIRTH INJURY/ or exp "BITES AND STINGS"/ or exp DROWNING/ or exp EROSION/ or exp EXPERIMENTAL INJURY/ or exp HEART INJURY/ or IMMUNE INJURY/ or IMMUNE MEDIATED INJURY/ or MEMBRANE DAMAGE/ or PRENATAL INJURY/ or PSYCHOTRAUMA/ or exp RADIATION INJURY/ or exp REPERFUSION INJURY/ or exp RESPIRATORY TRACT INJURY/ or exp RUPTURE/ or STRANGULATION/ or SURGICAL INJURY/ or exp THERMAL INJURY/ or BITE WOUND/ or exp SURGICAL WOUND/))
40	(ACCIDENT/ or FALLING/ or HOME ACCIDENT/ or exp OCCUPATIONAL ACCIDENT/ or TRAFFIC ACCIDENT/) and (injur\$ or wound? or trauma\$ or burn? or burned or fractur\$).ti
41	(ACCIDENT/ or FALLING/ or HOME ACCIDENT/ or exp OCCUPATIONAL ACCIDENT/ or TRAFFIC ACCIDENT/) and (injur\$ or wound? or trauma\$ or burn? or burned or fractur\$).ab. /freq=2
42	(accident? adj5 (injur\$ or wound\$ or trauma\$ or burn? or burned or fractur\$)).ti,ab.
43	(accident? adj3 (serious\$ or severe or severely or major)).ti,ab.
44	(ACCIDENT/ or FALLING/ or HOME ACCIDENT/ or exp OCCUPATIONAL ACCIDENT/ or TRAFFIC ACCIDENT/) and (HOSPITALIZATION/ or HOSPITAL ADMISSION/ or HOSPITALIZED ADOLESCENT/ or HOSPITALIZED CHILD/ or exp HOSPITAL/ or EMERGENCY HOSPITAL SERVICE/ or exp INTENSIVE CARE UNIT/ or REHABILITATION CENTER/)
45	(ACCIDENT/ or FALLING/ or HOME ACCIDENT/ or exp OCCUPATIONAL ACCIDENT/ or TRAFFIC ACCIDENT/) and (hospitali?ed or hospitali?tion? or ((admi\$ or stay? or stayed or treat\$ or present\$) adj5 (hospital? or unit? or intensive care or ICU? or PICU? or NICU? or department? or centre? or center?)).ti,ab.
46	*SPINAL CORD INJURY/ or *SPINAL CORD COMPRESSION/
47	exp *THORAX INJURY/ or *ACUTE LUNG INJURY/ or exp *RIB FRACTURE/
48	exp *NERVE INJURY/
49	exp *AMPUTATION/ or *AMPUTE/ or *LIMB SALVAGE/
50	((spinal\$ or spine? or chest? or thoracic\$ or nerve?) adj3 injur\$).ti
51	((spinal\$ or spine?) adj3 cord? adj3 compress\$).ti

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
52	((Flail\$ or stove in) adj3 chest?).ti.
53	(rib? adj3 fractur\$).ti.
54	((brachial or lumbosacral or lumba or sacral or cervical or coccygeal) adj3 plexus adj3 injur\$).ti.
55	(amputat\$ or amputee?).ti.
56	(limb? adj3 (loss or losing or lost or salvag\$ or re-construct\$ or reconstruct\$)).ti.
57	*HEAD INJURY/
58	(head adj3 injur\$).ti.
59	or/18-58
60	exp BRAIN INJURY/
61	(brain adj3 injur\$).ti,ab.
62	or/60-61
63	59 not 62
64	DEVICES/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
65	GENERAL DEVICE/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
66	EQUIPMENT DESIGN/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
67	ENVIRONMENTAL PLANNING/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
68	ERGONOMICS/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
69	SELF HELP DEVICE/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
70	ASSISTIVE TECHNOLOGY DEVICE/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
71	ENVIRONMENTAL CONTROL UNIT/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
72	COMMUNICATION AID/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
73	((adapt\$ or modif\$) adj3 equipment).ti,ab.
74	(equipment adj10 daily adj3 living).ti,ab.
75	(equipment adj5 participat\$).ti,ab.
76	(equipment adj5 independen\$).ti,ab.
77	(ergonomic? adj10 daily adj3 living).ti,ab.
78	(ergonomic? adj5 participat\$).ti,ab.
79	(ergonomic? adj5 independen\$).ti,ab.
80	(aid? adj3 daily adj3 living).ti,ab.
81	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj10 daily adj3 living).ti,ab.
82	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj5 participat\$).ti,ab.
83	((assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?) adj5 independen\$).ti,ab.
84	(environment\$ adj3 control\$ adj10 daily adj3 living).ti,ab.
85	(environment\$ adj3 control\$ adj5 participat\$).ti,ab.
86	(environment\$ adj3 control\$ adj5 independen\$).ti,ab.
87	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or (curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 daily adj3 living).ti,ab.
88	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or (curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 (social\$ or communit\$) adj3 participat\$).ti,ab.
89	((brace? or collar or special\$ bed? or sleep\$ system? or single access system? or communication board? or communication aid? or bell? or intercom? or alarm? or pager? or telephone? or phone? or smartphone? or app? or tablet? or television? or TV or TVs or stereo? or radio? or light\$ or lamp? or fan? or (door? adj3 (releas\$ or open\$)) or (curtain? adj3 open\$) or (window? adj3 open\$) or (page? adj3 turn\$) or telecare equipment or computer? or keyboard? or mouse or joystick? or roller ball? or eye gaze or software or ((wash\$ or dress\$) adj3 aid?) or special\$ grip? or handle?) adj10 independen\$ adj3 (live? or living patient?)).ti,ab.
90	((car or cars or vehicle?) adj3 adapt\$).ti,ab.
91	or/64-90
92	(instrumental adj3 activit\$ adj3 daily adj3 living adj10 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
93	OCCUPATIONAL THERAPY/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
94	KINESIOTHERAPY/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/)
95	(activit\$ adj3 daily adj3 living adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.

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Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
96	(independen\$ adj3 (live? or living or patient?) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
97	((social\$ or communit\$) adj3 participat\$ adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
98	((shop\$ or laundry or cook\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
99	(manag\$ adj3 (money or finance? or bank\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
100	or/92-99
101	(advanced adj3 activit\$ adj3 daily adj3 living adj10 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
102	OCCUPATIONAL THERAPY/ and (LEISURE ACTIVITIES/ or RECREATION/
103	RECREATIONAL THERAPY/
104	((leisure or recreation\$ or hobb\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
105	(sport? adj3 therap\$).ti,ab.
106	or/101-105
107	exp WHEELCHAIR/ and (DAILY LIFE ACTIVITY/ or INDEPENDENT LIVING/ or SOCIAL PARTICIPATION/ or COMMUNITY PARTICIPATION/ or COMMUNITY REINTEGRATION/
108	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj10 daily adj3 living).ti,ab.
109	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj5 participat\$).ti,ab.
110	((wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?) adj5 independen\$).ti,ab.
111	or/107-110
112	*VIOLENCE/pc [Prevention]
113	*VIOLENCE/ and RISK ASSESSMENT/
114	((violen\$ or crime? or gun? or knife? or knifing? or stabbed or stabbing?) adj3 (intervention? or program\$ or project? or support\$ or charit\$)).ti,ab.
115	Redthread.ti,ab.
116	St Giles Trust.ti,ab.
117	or/112-116
118	((adolescen\$ or teen\$ or youth\$ or juvenile? or minors or child\$ or schoolchild\$ or "school age" or "school aged" or preschool\$ or toddler\$ or kid? or boy? or girl? or infan\$ or neonat\$ or newborn\$ or baby or babies) adj10 (toilet\$ or feed\$ or sleep\$) adj5 (intervention? or treatment? or program\$ or rehab\$ or therap\$)).ti,ab.
119	learn\$ through play\$.ti,ab.
120	or/118-119
121	PLAY THERAPY/
122	(play\$ adj3 therap\$).ti,ab.
123	or/121-122
124	(SCHOOL/ or HIGH SCHOOL/ or KINDERGARTEN/ or MIDDLE SCHOOL/ or NURSERY SCHOOL/ or PRIMARY SCHOOL/) and (DEVICES/ or GENERAL DEVICE/ or EQUIPMENT DESIGN/ or ENVIRONMENTAL PLANNING/ or ERGONOMICS/ or SELF HELP DEVICE/ or ASSISTIVE TECHNOLOGY DEVICE/ or ENVIRONMENTAL CONTROL UNIT/ or COMMUNICATION AID/ or exp WHEELCHAIR/
125	((school\$ or nursery or nurseries or kindergarten?) adj5 (equipment or ergonomic\$)).ti,ab.
126	((school\$ or nursery or nurseries or kindergarten?) adj5 (assist\$ or self help or selfhelp) adj3 (device? or technolog\$ or aid?)).ti,ab.
127	((school\$ or nursery or nurseries or kindergarten?) adj5 environment\$ adj3 control\$).ti,ab.
128	((school\$ or nursery or nurseries or kindergarten?) adj5 (wheel chair? or wheelchair? or power\$ chair? or powerchair? or seat? or chair?)).ti,ab.
129	or/124-128
130	63 and 91
131	63 and 100
132	63 and 106
133	63 and 111
134	63 and 117
135	63 and 120
136	63 and 123
137	63 and 129
138	or/130-137
139	limit 138 to english language
140	limit 139 to yr="1995 -Current"
141	letter.pt. or LETTER/
142	note.pt.
143	editorial.pt.
144	CASE REPORT/ or CASE STUDY/
145	(letter or comment*).ti.
146	or/141-145
147	RANDOMIZED CONTROLLED TRIAL/ or random*.ti,ab.
148	146 not 147
149	ANIMAL/ not HUMAN/
150	NONHUMAN/
151	exp ANIMAL EXPERIMENT/
152	exp EXPERIMENTAL ANIMAL/
153	ANIMAL MODEL/

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
154	exp RODENT/
155	(rat or rats or mouse or mice).ti.
156	or/148-155
157	140 not 156
158	17 and 157

Database: Cochrane Central Register of Controlled Trials

Date of last search: 25/02/2020

#	Searches
#1	MeSH descriptor: [Economics] this term only
#2	MeSH descriptor: [Value of Life] this term only
#3	MeSH descriptor: [Costs and Cost Analysis] explode all trees
#4	MeSH descriptor: [Economics, Hospital] explode all trees
#5	MeSH descriptor: [Economics, Medical] explode all trees
#6	MeSH descriptor: [Resource Allocation] explode all trees
#7	MeSH descriptor: [Economics, Nursing] this term only
#8	MeSH descriptor: [Economics, Pharmaceutical] this term only
#9	MeSH descriptor: [Fees and Charges] explode all trees
#10	MeSH descriptor: [Budgets] explode all trees
#11	budget*:ti,ab
#12	cost*:ti,ab
#13	(economic* or pharmaco?economic*):ti,ab
#14	(price* or pricing*):ti,ab
#15	(financ* or fee or fees or expenditure* or saving*):ti,ab
#16	(value near/2 (money or monetary)):ti,ab
#17	resourc* allocat*:ti,ab
#18	(fund or funds or funding* or funded):ti,ab
#19	(ration or rations or rationing* or rationed).ti,ab.
#20	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19
#21	([mh "WOUNDS AND INJURIES"] not ([mh ^ASPHYXIA] or [mh ^"BATTERED CHILD SYNDROME"] or [mh "BIRTH INJURIES"] or [mh "BITES AND STINGS"] or [mh DROWNING] or [mh ^"EXTRAVASATION OF DIAGNOSTIC AND THERAPEUTIC MATERIALS"] or [mh ^FROSTBITE] or [mh "HEAT STRESS DISORDERS"] or [mh "RADIATION INJURIES"] or [mh ^RETROPNEUMOPERITONEUM] or [mh ^"SURGICAL WOUND"]))
#22	([mh ^HOSPITALIZATION] or [mh ^"PATIENT ADMISSION"] or [mh ^"ADOLESCENT, HOSPITALIZED"] or [mh ^"CHILD, HOSPITALIZED"] or [mh HOSPITALS] or [mh "EMERGENCY SERVICE, HOSPITAL"] or [mh "INTENSIVE CARE UNITS"] or [mh ^"REHABILITATION CENTERS"])
#23	#21 and #22
#24	(hospitalised or hospitalized or hospitalistion* or hospitalization* or ((admi* or stay* or stayed or treat* or present*) near/5 (hospital* or unit* or "intensive care" or ICU* or PICU* or NICU* or department* or centre* or center*)):ti,ab
#25	#21 and #24
#26	((hospitalised or hospitalized or hospitalistion* or hospitaliztion*) near/10 (injur* or wound* or trauma* or burn* or burned or fractur* or accident*)):ti,ab
#27	((admi* or stay* or stayed or treat* or present*) near/5 (hospital* or unit* or "intensive care" or ICU* or PICU* or NICU* or department* or centre* or center*) near/5 (injur* or wound* or trauma* or burn* or burned or fractur* or accident*)):ti,ab
#28	(patient* near/5 trauma*):ti,ab
#29	(patient* near/3 (burn* or burned or fractur*)):ti,ab
#30	"wound* patient*":ti,ab
#31	"injur* patient*":ti,ab
#32	"accident* patient*":ti,ab
#33	trauma*:ti,ab
#34	#21 and #33
#35	[mh "MULTIPLE TRAUMA"]
#36	[mh ^TRAUMATOLOGY]
#37	(trauma* near/5 (injur* or wound* or burn* or burned or fractur*)):ti,ab
#38	((complex* or multiple or critical*) near/3 (injur* or wound* or burn* or burned or fractur*)):ti,ab
#39	(trauma* near/3 (severe or severely or major or multiple)):ti,ab
#40	((injur* or wound* or burn* or burned or fractur*) near/2 (severe or severely or major or multiple)):ti,ab
#41	((physical* or body or bodily) near/3 (injur* or wound* or trauma* or burn* or burned or fractur*)):ti,ab
#42	(acute near/1 (injur* or trauma* or wound* or burn* or burned or fractur*)):ti,ab
#43	(polytrauma* or poly-trauma*):ti,ab
#44	traumatolog*:ti,ab
#45	([mh ^ACCIDENTS] or [mh ^"ACCIDENTAL FALLS"] or [mh ^"ACCIDENTS, HOME"] or [mh ^"ACCIDENTS, OCCUPATIONAL"] or [mh ^"ACCIDENTS, TRAFFIC"])

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
#46	#21 and #45
#47	(injur* or wound* or trauma* or burn* or burned or fractur*):ti,ab
#48	#45 and #47
#49	(accident* near/5 (injur* or wound* or trauma* or burn* or burned or fractur*)):ti,ab
#50	(accident* near/3 (serious* or severe or severely or major)):ti,ab
#51	#22 and #45
#52	(hospitalised or hospitalized or hospitalistion* or hospitalization* or ((admi* or stay* or stayed or treat* or present*) near/5 (hospital* or unit* or intensive care or ICU* or PICU* or NICU* or department* or centre* or center*)):ti,ab
#53	#45 and #52
#54	[mh ^"SPINAL CORD INJURIES"] or [mh ^"SPINAL CORD COMPRESSION"]
#55	[mh "THORACIC INJURIES"] or [mh ^"ACUTE LUNG INJURY"]
#56	[mh ^"PERIPHERAL NERVE INJURIES"] or [mh "CRANIAL NERVE INJURIES"]
#57	[mh AMPUTATION] or [mh ^"AMPUTATION, TRAUMATIC"] or [mh ^AMPUTEES] or [mh ^"AMPUTATION STUMPS"] or [mh ^"LIMB SALVAGE"]
#58	((spinal* or spine* or chest* or thoracic* or nerve*) near/3 injur*):ti
#59	((spinal* or spine*) near/3 cord* near/3 compress*):ti
#60	((Flail* or stove in) near/3 chest*):ti
#61	(rib* near/3 fractur*):ti
#62	((brachial or lumbosacral or lumba or sacral or cervical or coccygeal) near/3 plexus near/3 injur*):ti
#63	(amputat* or amputee*):ti
#64	(limb* near/3 (loss or losing or lost or salvag* or re-construct* or reconstruct*)):ti
#65	[mh ^"HEAD INJURIES, CLOSED"] or [mh ^"HEAD INJURIES, PENETRATING"]
#66	(head near/3 injur*):ti
#67	#23 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #46 or #48 or #49 or #50 or #51 or #53 or #54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66
#68	[mh "BRAIN INJURIES"]
#69	(brain near/3 injur*):ti
#70	#68 or #69
#71	#67 not #70
#72	[mh ^"EQUIPMENT AND SUPPLIES"] and (([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#73	[mh ^"EQUIPMENT DESIGN"] and (([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#74	[mh ^"ENVIRONMENT DESIGN"] and (([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#75	[mh ^ERGONOMICS] and (([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#76	[mh ^"SELF-HELP DEVICES"]
#77	(([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#78	#76 and #77
#79	[mh ^"COMMUNICATION AIDS FOR DISABLED"] and (([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#80	((adapt* or modif*) near/3 equipment):ti,ab
#81	(equipment near/10 daily near/3 living):ti,ab
#82	(equipment near/5 participat*):ti,ab
#83	(equipment near/5 independen*):ti,ab
#84	(ergonomic* near/10 daily near/3 living):ti,ab
#85	(ergonomic* near/5 participat*):ti,ab
#86	(ergonomic* near/5 independen*):ti,ab
#87	(aid* near/3 daily near/3 living):ti,ab
#88	((assist* or "self help" or selfhelp) near/3 (device* or technolog* or aid*) near/10 daily near/3 living):ti,ab
#89	((assist* or "self help" or selfhelp) near/3 (device* or technolog* or aid*) near/5 participat*):ti,ab
#90	((assist* or "self help" or selfhelp) near/3 (device* or technolog* or aid*) near/5 independen*):ti,ab
#91	(environment* near/3 control* near/10 daily near/3 living):ti,ab
#92	(environment* near/3 control* near/5 participat*):ti,ab
#93	(environment* near/3 control* near/5 independen*):ti,ab
#94	((brace* or collar or "special* bed*" or "sleep* system*" or "single access system*" or "communication board*" or "communication aid*" or bell* or intercom* or alarm* or pager* or telephone* or phone* or smartphone* or app* or tablet* or television* or TV or TVs or stereo* or radio* or light* or lamp* or fan* or (door* near/3 (releas* or open*)) or (curtain* near/3 open*) or (window* near/3 open*) or (page* near/3 turn*) or "telecare equipment" or computer* or keyboard* or mouse or joystick* or "roller ball*" or "eye gaze" or software or ((wash* or dress*) near/3 aid*) or special* grip* or handle*) near/10 daily near/3 living):ti,ab
#95	((brace* or collar or "special* bed*" or "sleep* system*" or "single access system*" or "communication board*" or "communication aid*" or bell* or intercom* or alarm* or pager* or telephone* or phone* or smartphone* or app* or tablet* or television* or TV or TVs or stereo* or radio* or light* or lamp* or fan* or (door* near/3 (releas* or open*)) or (curtain* near/3 open*) or (window* near/3 open*) or (page* near/3 turn*) or "telecare equipment" or computer* or keyboard* or mouse or joystick* or "roller ball*" or "eye gaze" or software or ((wash* or dress*) near/3 aid*) or special* grip* or handle*) near/10 (social* or communit*) near/3 participat*):ti,ab

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Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
#96	((brace* or collar or "special* bed*" or "sleep* system*" or "single access system*" or "communication board*" or "communication aid*" or bell* or intercom* or alarm* or pager* or telephone* or phone* or smartphone* or app* or tablet* or television* or TV or TVs or stereo* or radio* or light* or lamp* or fan* or (door* near/3 (releas* or open*)) or (curtain* near/3 open*) or (window* near/3 open*) or (page* near/3 turn*) or "telecare equipment" or computer* or keyboard* or mouse or joystick* or "roller ball*" or "eye gaze" or software or ((wash* or dress*) near/3 aid*) or special* grip* or handle*) near/10 independen* near/3 (live* or living patient*):ti,ab
#97	((car or cars or vehicle*) near/3 adapt*):ti,ab
#98	#72 or #73 or #74 or #75 or #78 or #79 or #80 or #81 or #82 or #83 or #84 or #85 or #86 or #87 or #88 or #89 or #90 or #91 or #92 or #93 or #94 or #95 or #96 or #97
#99	(instrumental near/3 activit* near/3 daily near/3 living near/10 (intervention* or treatment* or program* or rehab* or therap*):ti,ab
#100	[mh ^"OCCUPATIONAL THERAPY"] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#101	[mh ^"EXERCISE THERAPY"] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#102	(activit* near/3 daily near/3 living near/5 (intervention* or treatment* or program* or rehab* or therap*):ti,ab
#103	(independen* near/3 (live* or living or patient*) near/5 (intervention* or treatment* or program* or rehab* or therap*):ti,ab
#104	((social* or communit*) near/3 participat* near/5 (intervention* or treatment* or program* or rehab* or therap*):ti,ab
#105	((shop* or laundry or cook*) near/5 (intervention* or treatment* or program* or rehab* or therap*):ti,ab
#106	(manag* near/3 (money or finance* or bank*) near/5 (intervention* or treatment* or program* or rehab* or therap*):ti,ab
#107	#99 or #100 or #101 or #102 or #103 or #104 or #105 or #106
#108	(advanced near/3 activit* near/3 daily near/3 living near/10 (intervention* or treatment* or program* or rehab* or therap*):ti,ab
#109	[mh ^"OCCUPATIONAL THERAPY"] and ([mh ^"LEISURE ACTIVITIES"] or [mh ^"RECREATION"] or [mh ^"HOBBIES"] or [mh ^"SPORTS"] or [mh ^"PLAY AND PLAYTHINGS"])
#110	[mh ^"RECREATION THERAPY"]
#111	((leisure or recreation* or hobb*) near/5 (intervention* or treatment* or program* or rehab* or therap*):ti,ab
#112	(sport* near/3 therap*):ti,ab
#113	#108 or #109 or #110 or #111 or #112
#114	[mh ^"WHEELCHAIRS"] and ([mh ^"ACTIVITIES OF DAILY LIVING"] or [mh ^"INDEPENDENT LIVING"] or [mh ^"SOCIAL PARTICIPATION"] or [mh ^"COMMUNITY PARTICIPATION"])
#115	((("wheel chair*" or wheelchair* or "power* chair*" or powerchair* or seat* or chair*) near/10 daily near/3 living):ti,ab
#116	((("wheel chair*" or wheelchair* or "power* chair*" or powerchair* or seat* or chair*) near/5 participat*):ti,ab
#117	((("wheel chair*" or wheelchair* or "power* chair*" or powerchair* or seat* or chair*) near/5 independen*):ti,ab
#118	#114 or #115 or #116 or #117
#119	[mh ^"VIOLENCE/pc]
#120	[mh ^"VIOLENCE"] and [mh ^"RISK ASSESSMENT"]
#121	((violen* or crime* or gun* or knife* or knifing* or stabbed or stabbing*) near/3 (intervention* or program* or project* or support* or charit*):ti,ab
#122	Redthread:ti,ab
#123	"St Giles Trust":ti,ab
#124	#119 or #120 or #121 or #122 or #123
#125	((adolescen* or teen* or youth* or juvenile* or minors or child* or schoolchild* or "school age" or "school aged" or preschool* or toddler* or kid* or boy* or girl* or infan* or neonat* or newborn* or baby or babies) near/10 (toilet* or feed* or sleep*) near/5 (intervention* or treatment* or program* or rehab* or therap*):ti,ab
#126	"learn* through play*":ti,ab
#127	#125 or #126
#128	[mh ^"PLAY THERAPY"]
#129	(play* near/3 therap*):ti,ab
#130	#128 or #129
#131	([mh ^"SCHOOLS"] or [mh ^"SCHOOLS, NURSERY"] or [mh ^"NURSERIES"] or [mh ^"CHILD DAY CARE CENTERS"]) and ([mh ^"EQUIPMENT DESIGN"] or [mh ^"ENVIRONMENT DESIGN"] or [mh ^"ERGONOMICS"] or [mh ^"SELF-HELP DEVICES"] or [mh ^"COMMUNICATION AIDS FOR DISABLED"] or [mh ^"WHEELCHAIRS"])
#132	((school* or nursery or nurseries or kindergarten*) near/5 (equipment or ergonomic*):ti,ab
#133	((school* or nursery or nurseries or kindergarten*) near/5 (assist* or "self help" or selfhelp) near/3 (device* or technolog* or aid*):ti,ab
#134	((school* or nursery or nurseries or kindergarten*) near/5 environment* near/3 control*):ti,ab
#135	((school* or nursery or nurseries or kindergarten*) near/5 ("wheel chair*" or wheelchair* or "power* chair*" or powerchair* or seat* or chair*):ti,ab
#136	#131 or #132 or #133 or #134 or #135
#137	#71 and #98
#138	#71 and #107
#139	#71 and #113
#140	#71 and #118
#141	#71 and #124
#142	#71 and #127
#143	#71 and #130
#144	#71 and #136

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

#	Searches
#145	#137 or #138 or #139 or #140 or #141 or #142 or #143 or #144
#146	#20 and #145 with Publication Year from 1995 to 2020, in Trials

Appendix C – Clinical evidence study selection

Clinical study selection for review questions:

B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?

A combined search was conducted for both review questions.

Figure 1: Study selection flow chart: Adults

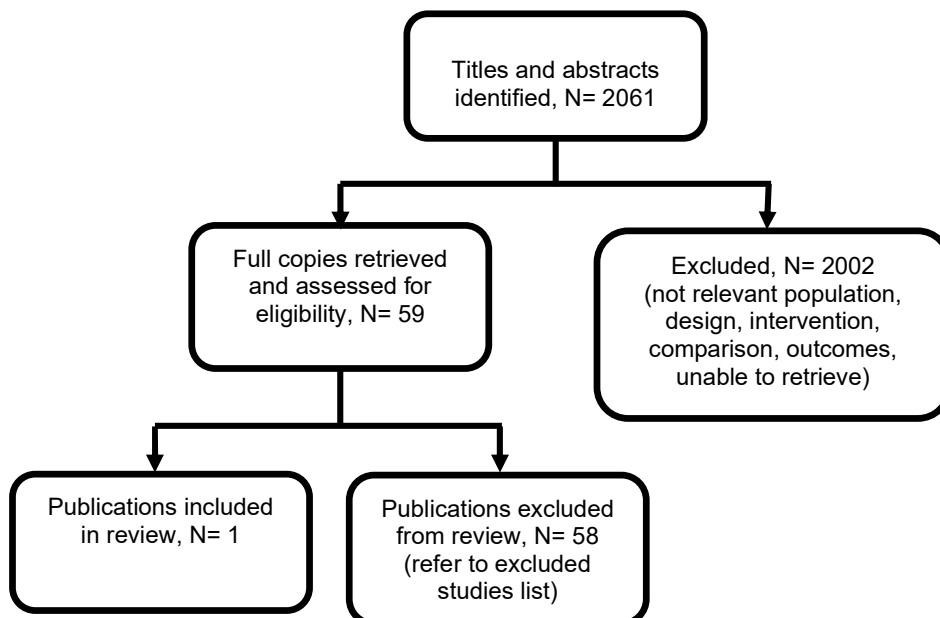
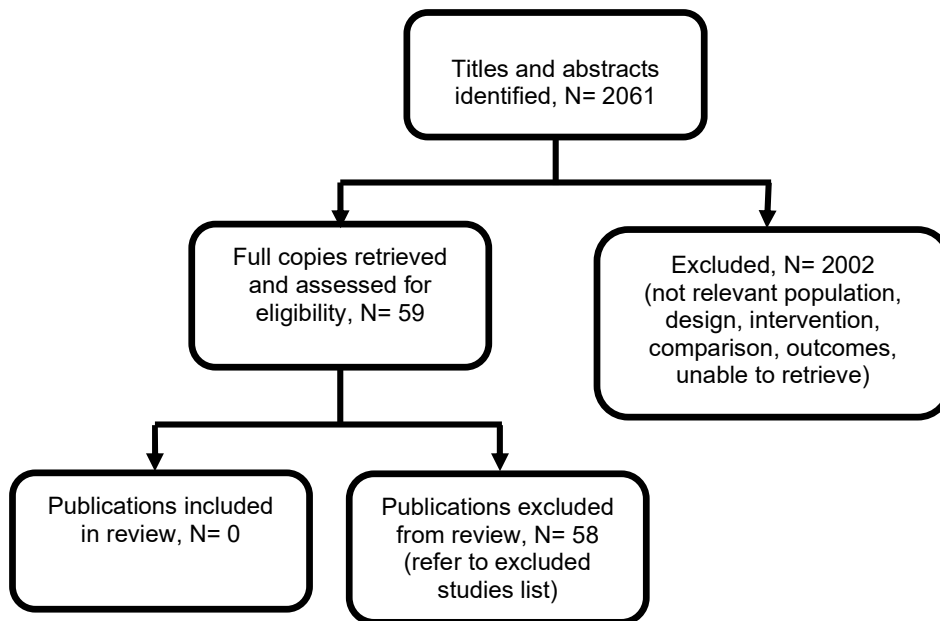


Figure 2: Study selection flow chart: Children and young people



Appendix D – Clinical evidence tables

Clinical evidence tables for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

Table 7: Clinical evidence tables

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>Full citation Cooper, Carnell, Eslinger, Dawn M., Stolley, Paul D., Hospital-based violence intervention programs work, The Journal of trauma, 61, 534-40, 2006</p> <p>Ref Id 1195105</p> <p>Country/ies where the study was carried out United States</p> <p>Study type Randomised controlled trial</p>	<p>Sample size N=100 (randomised and analysed)</p> <ul style="list-style-type: none"> Intervention: N=56 Control: N=44 <p>Characteristics Age (<30 years /30-44 years/ 45+ years):</p> <ul style="list-style-type: none"> Intervention (N): 29/24/3 Control (N): 43/1 <p>Gender (M/F):</p> <ul style="list-style-type: none"> Intervention (N): 53/3 Control (N): 43/1 <p>Time since injury in years: Not reported</p> <p>Injury cause: Unspecified injury secondary to violent</p>	<p>Hospital-based violence intervention programme (VIP):</p> <ul style="list-style-type: none"> service plan which covered substance abuse rehabilitation, employment training, employment services, educational services, conflict resolution, and family development. post-discharge regular meetings with a social worker and parole and probation officer. home visits by VIP team. weekly group sessions all active cases were reviewed weekly by a multidisciplinary team (social workers; caseworkers; program manager; parole and probation agent; representatives from psychiatry, epidemiology, preventive medicine, trauma and critical care) 	<p>Emergency department or hospital admission for violent crime</p> <p>Number of people with hospital admission for violent crime (follow-up time 2 years):</p> <ul style="list-style-type: none"> VIP: 3/56 Control: 16/44 	<p>Limitations</p> <p>Quality assessment: Risk of bias assessed using revised Cochrane risk of bias tool (RoB 2)</p> <p><u>Domain 1: Risk of bias arising from the randomization process</u></p> <p>1.1 Was the allocation sequence random? NI (Paper simply states that the subjects were randomised)</p> <p>1.2 Was the allocation sequence concealed until participants were enrolled and assigned to interventions? NI</p> <p>1.3 Did baseline differences between intervention groups suggest a problem with the randomization process? Y (Intervention group had a more extensive history with violent crime)</p> <p>Risk of bias judgement: High risk</p> <p><u>Domain 2: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)</u></p> <p>2.1. Were participants aware of their assigned intervention during the trial? Y (No blinding appears to have been undertaken)</p> <p>2.2. Were carers and people delivering the interventions aware of participants' assigned intervention during the trial? PY (No blinding appears to have been undertaken)</p> <p>2.3. If Y/PY/NI to 2.1 or 2.2: Were there deviations from</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>Aim of the study To undertake prospective evaluation of a hospital-based violence prevention programme</p> <p>Study dates January 1999 to October 2001</p> <p>Source of funding Unspecified grant funds</p>	<p>assault, i.e. gang violence.</p> <p>Length of hospitalisation in days: Not reported</p> <p>Inclusion criteria “Entry criteria were age 18, at least one previous admission to a hospital for treatment for a violent injury, and involvement in the criminal justice system in the form of parole and/or probation.” (p. 534)</p> <p>Exclusion criteria Not reported</p>	<p>Versus</p> <p>Control: “No organised support from VIP team and continued with the parole and probation agent who was previously handling their case.” (p.535)</p> <p>People in both groups were treated by the same physician group. Standard rehabilitation care was not defined.</p> <p>Follow-up (%) VIP <1 year: 23% 1–2 years: 41% > 2 years: 36% Control <1 year: 36% 1–2 years: 30% > 2 years: 34%</p>		<p>the intended intervention that arose because of the experimental context? NI</p> <p>2.4. If <u>Y/PY</u> to 2.3: Were these deviations from intended intervention balanced between groups? NA</p> <p>2.5 If <u>No/PN/NI</u> to 2.4: Were these deviations likely to have affected the outcome? NA</p> <p>2.6 Was an appropriate analysis used to estimate the effect of assignment to intervention? NI (No information on drop outs/missing data etc.)</p> <p>2.7 If <u>No/PN/NI</u> to 2.6: Was there potential for a substantial impact (on the result) of the failure to analyse participants in the group to which they were randomized? PN (The participants appear to have been analysed within their assigned group)</p> <p>Risk-of-bias judgement: High risk</p> <p><u>Domain 3: Missing outcome data</u></p> <p>3.1 Were data for this outcome available for all, or nearly all, participants randomized? Y</p> <p>3.2 If <u>No/PN/NI</u> to 3.1: Is there evidence that the result was not biased by missing outcome data? NA</p> <p>3.3 If <u>No/PN</u> to 3.2: Could missingness in the outcome depend on its true value? NA</p> <p>3.4 If <u>Y/PY/NI</u> to 3.3: Is it likely that missingness in the outcome depended on its true value? NA</p> <p>Risk-of-bias judgement: Low risk</p> <p><u>Domain 4: Risk of bias in measurement of the outcome</u></p> <p>4.1 Was the method of measuring the outcome inappropriate? N (Objective outcome)</p> <p>4.2 Could measurement or ascertainment of the outcome have differed between intervention groups? N (Objective outcome)</p> <p>4.3 If <u>No/PN/NI</u> to 4.1 and 4.2: Were outcome assessors aware of the intervention received by study participants? NI</p> <p>4.4 If <u>Y/PY/NI</u> to 4.3: Could assessment of the outcome have been influenced by knowledge of intervention received? N (Objective outcome).</p> <p>4.5 If <u>Y/PY/NI</u> to 4.4: Is it likely that assessment of the outcome was influenced by knowledge of intervention</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
				received? NA Risk-of-bias judgement: Low risk <u>Domain 5: Risk of bias in selection of the reported result</u> 5.1 Were the data that produced this result analysed in accordance with a pre-specified analysis plan that was finalized before unblinded outcome data were available for analysis? NI Is the numerical result being assessed likely to have been selected, on the basis of the results, from 5.2. ... multiple outcome measurements (e.g. scales, definitions, time points) within the outcome domain? N 5.3 ... multiple analyses of the data? N Risk-of-bias judgement: Low risk Overall risk of bias: High risk

F: Female; M: Male; N: Number; NI: No information; PN: Probably no; PY: Probably yes; VIP: Violence intervention programme

Clinical evidence tables for review question: B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?

No evidence was identified which was applicable to this review question.

Appendix E – Forest plots

Forest plots for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

No meta-analyses were performed as the interventions or outcomes were either not sufficiently similar to allow them to be combined or they were not reported by more than one study

Forest plots for review question: B.4b What rehabilitation interventions relating to participation in society (e.g., return to nursery, education, training or work) are effective and acceptable for children and young people?

No evidence was identified which was applicable to this review question.

Appendix F – GRADE tables

GRADE tables for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

Table 8: Clinical evidence profile for violence intervention programme (VIP) versus control (no VIP) for adults with complex rehabilitation needs after traumatic injury

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Hospital-based VIP	Control (no VIP)	Relative (95% CI)	Absolute		
Hospital admissions for violent injury (follow-up time 2 years)												
1	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	3/56 (5.4%)	16/44 (36.4%)	RR 0.15 (0.05 to 0.47)	309 fewer per 1000 (from 193 fewer to 345 fewer)	LOW	IMPORTANT

CI: Confidence interval; RR: Risk ratio; SD: Standard deviation; VIP: Violence intervention programme

¹ Very serious risk of bias in the evidence contributing to the outcome as per RoB 2.

GRADE tables for review question: B.4b What rehabilitation interventions relating to participation in society (e.g., return to nursery, education, training or work) are effective and acceptable for children and young people?

No evidence was identified which was applicable to this review question

Appendix G – Economic evidence study selection

Economic study selection for:

B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?

A combined search was conducted for both review questions.

Figure 3: Study selection flow chart: Adults

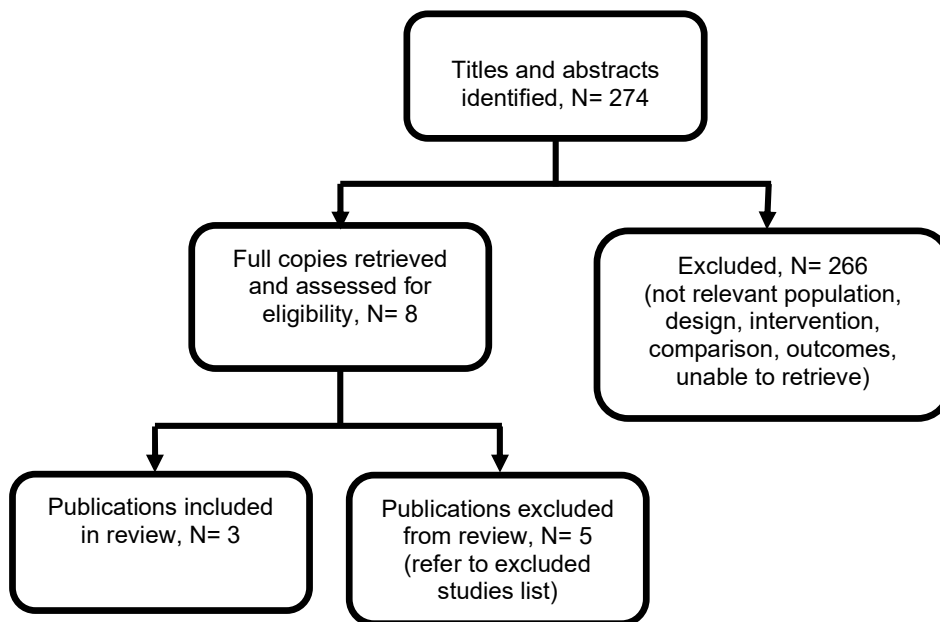
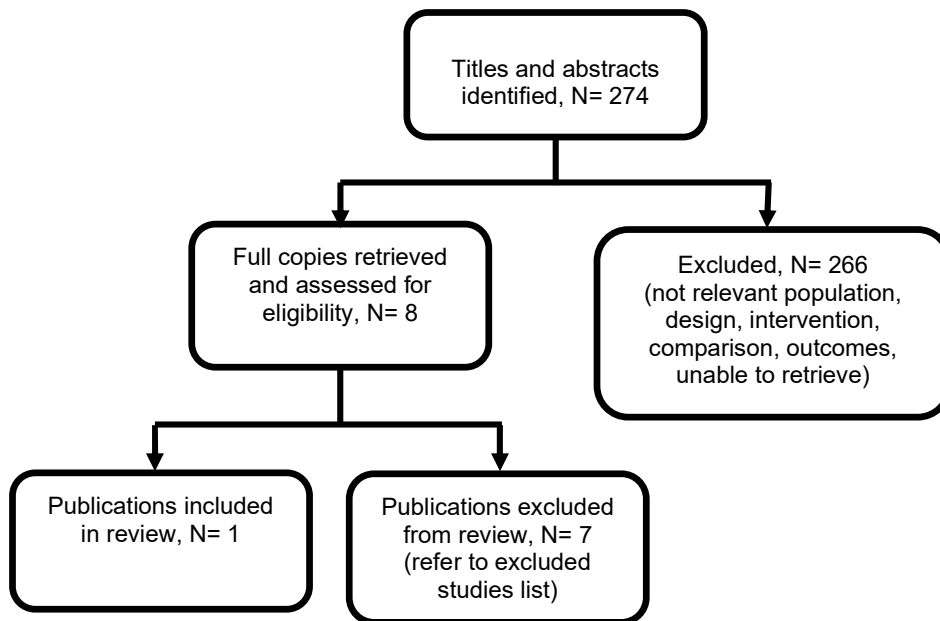


Figure 4: Study selection flow chart: Children and young people



Appendix H – Economic evidence tables

Economic evidence tables for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

Table 9: Economic evidence tables for violence intervention programmes

Study Country Study type	Intervention details	Study population Study design Data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments
Chong 2015 US Cost-utility analysis Conflict of interest: none declared Funding: not reported	Hospital-based violence intervention programme “Caught in the Crossfire”. Injured patients are seen by injury prevention coordinator at accident and emergency department to decide the eligibility. Intervention specialist would see a patient while at hospital or sometimes following the discharge. Programme includes: - Initial assessment of a patient and their family needs - Intensive case management “help obtaining state victim-of-violence restitution funds, assistance with insurance enrolment and medical costs, transportation to and from medical appointments or	Victims of interpersonal violence with penetrating injuries. “Our base case is an 18-year-old patient who presents to our trauma centre with a firearm injury because of interpersonal violence and survives to hospital discharge” (p. 600) Modelling (Markov) Source of effectiveness data: trauma centre’s experience (registry n=155); published literature Source of resource use data: trauma centre’s registry	Costs: hospital stays, violence intervention programme, recidivism hospitalization costs Mean expected costs per participant at 5 years: VIP: \$3,574 SC: \$3,015 The difference: \$559 Outcomes: Quality-adjusted life years (QALYs), utility scores based on assumptions informed by published literature Mean QALYs per participant at 5 years: VIP: 4.64 SC: 4.62 The difference: 0.02	Incremental cost-effectiveness ratio (ICER) of VIP (vs. SC): \$27,950 Sensitivity analyses: Equivalence in costs occurred when - annual recidivism rates in VIP group decreased from 2.5% (base-case) to 2.3% - annual recidivism rates in SC group increased from 4% (base-case) to 4.1% - cost of hospitalization for recidivists in the VIP group decreased to \$6,006 (from \$6,513, base-case)	Perspective: healthcare payer Currency: USD Cost year: 2010 prices Time horizon: 5 years Discounting: none Applicability: partially applicable Quality: potentially serious limitations Other information: Based on the reported mean costs the authors report the cost difference of \$59, and the ICER of \$2,941. No PSA seems to have been undertaken. So

Study Country Study type	Intervention details	Study population Study design Data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments
	<p>court hearings, help with obtaining education or employment needs, driver's licenses, and referrals to mental health counselling". (p. 599)</p> <p>Versus</p> <p>Standard care (SC): risk reduction services (counselling by the injury prevention coordinator); no scheduled or routine follow-up.</p>	<p>Source of unit costs: national (Medicare cost-to-charge ratios for urban hospitals in California)</p>		<p>- cost of hospitalization for recidivists in the SC group increased to \$19,038 (from \$18,722, base-case)</p> <p>Sensitivity analyses where annual rates of recidivism were simultaneously varied in both groups indicated that if annual recidivism rate is between 0%-5% in the VIP group, VIP will be cost-effective only if corresponding annual recidivism rate in the SC group is between 3%-5%.</p>	<p>unclear how the cost difference of \$59 was obtained.</p>
<p>Juillard 2015</p> <p>US</p> <p>Cost-utility analysis</p> <p>Conflict of</p>	<p>Hospital-based violence intervention programme (VIP)</p> <p>After initial stabilization patients are approached by a case manager. If enrolled they receive "intense and culturally sensitive one-on-one case management,</p>	<p>Patients between the ages of 10-30 years who were intentionally injured by another person.</p> <p>Modelling (Markov)</p> <p>Source of effectiveness</p>	<p>Costs: intervention, cost of trauma care (initial trauma care and follow-up)</p> <p>Mean discounted expected costs per participant at 5 years: VIP: \$5,892</p>	<p>VIP is dominant (i.e. lower costs and more QALYs)</p> <p>Sensitivity analyses: VIP remained dominant when varying:</p>	<p>Perspective: healthcare payer</p> <p>Currency: USD</p> <p>Cost year: 2011 prices</p> <p>Time horizon: 5 years for costs; lifetime for QALYs</p>

Study Country Study type	Intervention details	Study population Study design Data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments
interest: none declared Funding: not reported	including mental health services, employment opportunities, and guidance to other resources based on initial risk assessment (including education resources, court advocacy, housing opportunities, and tattoo removal)" (p.253) Standard care (SC): "A patient not enrolled received standard treatment available to all patients, including social work resources." (p. 253)	data: published literature and trauma registry database Source of resource use data: patient financial records at the trauma centre; operational budgets Source of unit costs: charges were converted to cost using "the SFGH cost-to-charges ratio for 2011" (p. 253)	SC: \$5,923 The difference: -\$31 Outcomes: Quality-adjusted life years (QALYs), utility scores based on assumptions informed by published literature Mean discounted lifetime QALYs per participant: VIP: 25.58 SC: 25.34 The difference: 0.24	- injury case-fatality annual rate between 0.058-0.119 (base-case: 0.088) - utility if healthy (per patient) between 0.82-1.00 (base-case: 0.84) - utility after injury (per patient) between 0.68-0.82 (base-case: 0.70) - QALYs (if survive) between 12.56-41.49 (base-case: 21.47) Varying annual recidivism rate with VIP between 0.001-0.017 (base-case: 0.009): - at lower estimate VIP dominant - at upper estimate the ICER of VIP: \$9,454 Varying the cost of injury per patient between \$239-	Discounting: 3% for both costs and outcomes Applicability: partially applicable Quality: potentially serious limitations

Study Country Study type	Intervention details	Study population Study design Data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments
				<p>897,117 (base-case: \$41,757):</p> <ul style="list-style-type: none"> - at lower estimate the ICER of VIP: \$17,079 - at upper estimate VIP dominant <p>Varying the cost of VIP per patient between \$2,000-\$5,058 (base-case: \$4,150):</p> <ul style="list-style-type: none"> - at lower estimate VIP dominant - at upper estimate the ICER of VIP: \$3,627 <p>Two-way sensitivity analysis</p> <ul style="list-style-type: none"> - highest net savings (\$7,693) achieved when the re-injury rate with VIP is lowest (0.1%, base-case: 0.9%) and the re-injury rate with SC is highest (7%, base-case: 3.2%) 	

Study Country Study type	Intervention details	Study population Study design Data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments
				<p>- highest net cost is when there is a high re-injury rate with VIP (1.7%, base-case: 0.9%) and low re-injury rate with SC (2.4%, base-case: 3.2%)</p> <p>- maximum QALYs gained (0.684) is achieved when injury recidivism with SC is at the highest value (7%, base-case: 3.2%) and VIP recidivism is at the lowest value (0.1%, base-case: 0.9%)</p> <p>Three-way sensitivity analysis</p> <p>- the highest ICER (\$58,857 per QALY gained) results when recidivism rate with SC is low (12% over 5 years), cost of injury is low (\$1,000 per injury), and re-injury rate with VIP is high (8.5% over 5</p>	

Study Country Study type	Intervention details	Study population Study design Data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments
				years) - most cost-effective outcome (net savings of \$166,000 and a gain of 0.68 QALYs) is achieved when re-injury rate with SC is high (35%), cost of injury increases to \$600,000, and VIP re-injury rate is low	
Purtle 2015 US Cost-offset analysis Conflict of interest: none declared Funding: Stoneleigh Foundation	Hospital-based violence intervention programme - brief intervention in the hospital - needs assessment - therapeutic case-management services to connect violently injured patients with resources that reduce risk of violent re-injury and perpetration No-comparator	Hypothetical population of violently injured patients (no further detail provided) Modelling (Decision tree) Source of effectiveness data: systematic review of literature Source of resource use data: survey of directors of violence intervention programmes, published studies Source of unit costs:	Costs: violence intervention programme, lifetime healthcare and lost productivity costs associated with non-fatal and fatal injuries, costs associated with cases of violent perpetration (criminal justice costs including costs of investigation, legal defence, incarceration, probation, and parole) Mean expected cost savings for a cohort of 90 patients at 5 years (assuming relative risk for violent re-injury of 0.75 for VIP*): Healthcare perspective (re-injury costs only)	Intervention is cost saving: \$82,765-114,008 for a cohort of 90 people; cost to benefits ratio: 1.24-1.33 Sensitivity analyses: Discounted costs and associated cost-benefit ratios at 5 years for a cohort of 90 patients, for different VIP effect estimates (RR), from different perspectives Healthcare (with re-injury healthcare	Perspective: healthcare (with and without perpetration victim healthcare costs), public sector, and societal Currency: USD Cost year: 2011 prices Time horizon: 5 years Discounting: none Applicability: partially applicable Quality: potentially serious limitations

Study Country Study type	Intervention details	Study population Study design Data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments
		unclear (various published studies)	\$82,765 Healthcare perspective (re-injury plus perpetration victim healthcare costs) \$114,008	costs only) RR 0.80 (i.e. re-injury rate in the VIP group reduced by 20%): (\$3,788), 0.99 RR 0.70: \$169,319, 1.48 Healthcare (with re-injury healthcare costs plus perpetration victim healthcare costs) RR 0.80: \$21,270, 1.06 RR 0.70: \$206,810, 1.59 Public sector RR 0.80: \$113,887, 1.33 RR 0.70: \$345,830, 1.99 Societal RR 0.80: \$3,174,698, 10.07 RR 0.70: \$4,937,047, 15.11	

ICER: Incremental cost-effectiveness ratio; NA: Not applicable; PSA: Probabilistic sensitivity analysis; SC: Standard care; QALY: Quality-adjusted life years; USD: The United States dollar; VIP: Violence intervention programme

**The baseline risk of non-fatal re-injury resulting in hospitalisation was 8.3 per 100 person-years at risk, non-fatal violent re-injury not resulting in hospitalisation 69.4 per 100 person-years at risk, and fatal violent re-injury resulting in medical care 0.90 per 100 person-years at risk*

Economic evidence tables for review question: B.4b What rehabilitation interventions relating to participation in society (e.g., return to nursery, education, training or work) are effective and acceptable for children and young people?

Please see the economic evidence tables for violence intervention programmes, Juillard 2015.

Appendix I – Economic evidence profiles

Economic evidence profiles for review question: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

Economic evidence profiles are presented in the [main text](#).

Economic evidence profiles for review question: B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?

Economic evidence profiles are presented in the [main text](#) (i.e. economic evidence profiles for violence intervention programmes, Juillard 2015).

Appendix J – Economic analysis

Economic analysis for review questions: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

No economic analysis was undertaken for this review question.

Economic analysis for review question: B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?

No economic analysis was undertaken for this review question.

Appendix K – Excluded studies

Excluded clinical and economic studies for review questions: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

Clinical studies: Adults

Table 10: Excluded studies and reasons for their exclusion

Study	Reason for Exclusion
Aboutanos, M. B., Jordan, A., Cohen, R., Foster, R. L., Goodman, K., & Halfond R. W., Brief violence interventions with community case management services are effective for high-risk trauma patients, <i>The Journal of trauma</i> , 71, 228-227, 2011	Comparisons not in PICO: Brief violence intervention plus community case management services versus brief violence intervention alone
Affinati, S., Patton, D., Hansen, L., Ranney, M., Christmas, A.B., Violano, P., et al., Hospital-based violence intervention programs targeting adult populations: an Eastern Association for the Surgery of Trauma evidence-based review, <i>Trauma surgery & acute care open</i> , 1, e000024, 2016	Systematic review, included studies checked for relevance
Andrew, N., Gabbe, B., Wolfe, R., & Cameron, P., The long term impact of hospitalised orthopaedic sport and active recreation injuries on health related quality of life and physical activity levels, <i>Journal of Science and Medicine in Sport</i> , 14, e96, 2011	Published as abstract only
Asplin, G., Carlsson, G., Zidén, L., & Kjellby-Wendt, G., Early coordinated rehabilitation in acute phase after hip fracture - a model for increased patient participation, <i>BMC Geriatrics</i> , 17, 240, 2017	Intervention not in PICO: Coordinated comprehensive rehabilitation that comprised psychological and physical component
Auais, M.A., Eilayyan, O., & Mayo, N.E., Extended exercise rehabilitation after hip fracture improves patients' physical function: a systematic review and meta-analysis, <i>Physical therapy</i> , 92, 1437-51, 2012	Intervention not in PICO: Exercise/physical rehabilitation
Betts, A.C., Froehlich-Grobe, K., Driver, S., Carlton, D. & Kramer, M.K., Reducing barriers to healthy weight: Planned and responsive adaptations to a lifestyle intervention to serve people with impaired mobility, <i>Disability and health journal</i> , 11, 315-323, 2018	Population not in PICO: Mixed population of people with spinal cord injury, multiple sclerosis, stroke, cancer, osteoarthritis, orthopaedic problems, and other aetiologies that resulted in impaired mobility; non-comparative study (describes an adapted evidence-based lifestyle intervention)
Chen, L.K., Home-based post-acute care for older patients with hip fracture in Taiwan: A prospective cohort study, <i>European Geriatric Medicine</i> , 2, S205, 2011	Intervention not in PICO: Comprehensive geriatric assessment -based multidisciplinary intervention
Cheng, T.L., Haynie, D., Brenner, R., Wright, J. L., Chung, S.E., & Simons-Morton, B., Effectiveness of a mentor-implemented, violence prevention intervention for assault-injured youths presenting to the emergency department: Results of a randomized trial, <i>Pediatrics</i> , 122, 938-946, 2008	Outcomes not in PICO: Study reports fight injuries, fight risk, carry a knife, misdemeanour, friend behaviour, aggressions core, attitude about interpersonal violence, attitudes toward retaliation, social competence, conflict avoidance self-efficacy, Child Behavior Checklist (CBCL) aggression subscale

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

Study	Reason for Exclusion
Crawford, J.R., Khan, R.J., & Varley, G.W., Early management and outcome following soft tissue injuries of the neck-a randomised controlled trial, <i>Injury</i> , 35, 891-895, 2004	Intervention not in PICO: All people were initially supplied with a standard soft cervical collar and non-steroidal anti-inflammatory medication from the accident and emergency department, and were referred to the research clinic held twice weekly. Also, people were not admitted.
Cunningham, R.M., Chermack, S.T., Shope, J.T., Bingham, C.R., Zimmerman, M.A., Blow, F.C., & Walton, M.A., Twelve-month outcomes from the "saferteen" study: An alcohol and violence brief intervention for adolescents in the emergency department, <i>Alcoholism: Clinical and Experimental Research</i> , 35, 213A, 2011	Intervention not in PICO: Combined violence and alcohol intervention
Daniel, A., & Manigandan, C., Efficacy of leisure intervention groups and their impact on quality of life among people with spinal cord injury, <i>International journal of rehabilitation research. Internationale Zeitschrift fur Rehabilitationsforschung. Revue internationale de recherches de readaptation</i> , 28, 43-8, 2005	Non-randomised study, n=50
Dattoli, S., Colucci, M., Soave, M. G., De Santis, R., Segaletti, L., Corsi, C., et al., Evaluation of pelvis postural systems in spinal cord injury patients: Outcome research, <i>Journal of Spinal Cord Medicine</i> , 1-13, 2018	Cross-over study design
Florence, C., Shepherd, J., Brennan, I., & Simon, T., Effectiveness of anonymised information sharing and use in health service, police, and local government partnership for preventing violence related injury: experimental study and time series analysis, <i>BMJ (Clinical research ed.)</i> , 342, d3313, 2011	Intervention not in PICO: Community partnership between the health service, police, and local government partners designed to prevent violence (pedestrianizing sections of a city centre street where bars and nightclubs are mainly concentrated, mandatory use of plastic glassware in selected licensed premises, and more frequent late night public transport services)
Forchheimer, M., & Tate, D. G., Enhancing community re-integration following spinal cord injury, <i>NeuroRehabilitation</i> , 19, 103-113, 2004	Non-randomised study, n=81
Furmaniuk, L., Cywińska-Wasilewska, G., & Kaczmarek, D., Influence of long-term wheelchair rugby training on the functional abilities in persons with tetraplegia over a two-year post-spinal cord injury, <i>Journal of Rehabilitation Medicine</i> , 42, 688-690, 2010	Non-randomised study, n=40
Furmaniuk, L., & Cywinska-Wasilewska, G., Evaluation of changes in functional independence of spinal cord injury survivors during Active Rehabilitation camps, <i>Fizjoterapia</i> , 17, 17-24, 2009	Non-randomised study, n=40
George, S., Barr, C., Jarvis, N., Neeson, S., Nussio, A., Liddle, J., The impact of a driving cessation program on community participation goals following complex trauma injury: a randomised controlled trial of the carfreeme TI program, <i>Brain Impairment</i> , 19, 310, 2018	Cross-over study design
Guzelkucuk, U., Duman, I., Taskaynatan, M. A., &	Intervention not in PICO: Physical therapy

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

Study	Reason for Exclusion
Dincer, K., Comparison of therapeutic activities with therapeutic exercises in the rehabilitation of young adult patients with hand injuries, <i>The Journal of hand surgery</i> , 32, 1429-35, 2007	and exercise programme
Hagsten, B., Svensson, O., & Gardulf, A., Early individualized postoperative occupational therapy training in 100 patients improves ADL after hip fracture: a randomized trial, <i>Acta Orthopaedica Scandinavica</i> , 75, 177-83, 2004	Intervention/comparison not in PICO: Occupational therapy focusing on basic activities of daily living (bathing/hygiene, dressing, mobility, toilet visits) versus standard care
Hagsten, B., Svensson, O., & Gardulf, A., Health-related quality of life and self-reported ability concerning ADL and IADL after hip fracture: a randomized trial, <i>Acta orthopaedica</i> , 77, 114-9, 2006	Intervention/comparison not in PICO: Occupational therapy focusing on basic activities of daily living (bathing/hygiene, dressing, mobility, toilet visits) versus standard care
Hasebe, K., Momosaki, R., Sawabe, M., Chono, M., Sawaguchi, A., & Kasuga, S., Effectiveness of weekend physical rehabilitation for functional recovery in geriatric patients with hip fracture, <i>Geriatrics & gerontology international</i> , 18, 1143-1146, 2018	Intervention not in PICO: Weekend versus non-weekend rehabilitation
Herbold, J. A., Bonistall, K., & Walsh, M. B., Rehabilitation following total knee replacement, total hip replacement, and hip fracture: a case-controlled comparison, <i>Journal of geriatric physical therapy</i> (2001), 34, 155-60, 2011	Intervention not in PICO: Inpatient rehabilitation facility versus skilled nursing facility
Huusko, T. M., Karppi, P., Avikainen, V., Kautiainen, H., & Sulkava, R., Intensive geriatric rehabilitation of hip fracture patients: a randomized, controlled trial, <i>Acta orthopaedica Scandinavica</i> , 73, 425-31, 2002	Unclear intervention: Content of rehabilitation program not clearly reported for the intervention or control groups
Kagaya, H., & Shimada, Y., Treatment and rehabilitation after hip fracture in the elderly, <i>Critical Reviews in Physical and Rehabilitation Medicine</i> , 19, 97-113, 2007	Narrative review
Kapadia, N. M., Bagher, S., & Popovic, M. R., Influence of different rehabilitation therapy models on patient outcomes: Hand function therapy in individuals with incomplete SCI, <i>Journal of Spinal Cord Medicine</i> , 37, 734-743, 2014	Intervention not in PICO: functional electrical stimulation therapy plus occupational therapy
Karlsson, Å., Berggren, M., Gustafson, Y., Olofsson, B., Lindelöf, N., & Stenvall, M., Effects of Geriatric Interdisciplinary Home Rehabilitation on Independence in Activities of Daily Living in Older People with Hip Fracture: A Randomized Controlled Trial, <i>Archives of Physical Medicine and Rehabilitation</i> , 2020	Interventions not in PICO: Early home rehabilitation (early discharge from the hospital and continuation of rehabilitation in their homes) versus rehabilitation on geriatric ward
Karni, S., Bentur, N., & Ratzon, N., Participation and quality of life of cognitively impaired older women in Israel following hip fractures, <i>Occupational therapy international</i> , 21, 91-7, 2014	Non-randomised study, n=60
Kazemi, D. M., Jacobs, D. G., Portwood, S. G., Veach, L., Zhou, W., & Hurley, M. J., Trauma Center Youth Violence Screening and Brief Interventions: A Multisite Pilot Feasibility Study, <i>Violence and victims</i> , 32, 251-264, 2017	Non-randomised study, n=38
Kiser, K., Plan of action. Physicians are working with	Opinion piece/overview

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

Study	Reason for Exclusion
the City of Minneapolis to keep kids from becoming repeat victims of violence, Minnesota medicine, 92, 10-1, 2009	
Kuijlaars, I. A., Sweerts, L., Nijhuis-van der Sanden, M. W., van Balen, R., Staal, J. B., van Meeteren, N. L., & Hoozeboom, T. J., Effectiveness of Supervised Home-Based Exercise Therapy Compared to a Control Intervention on Functions, Activities, and Participation in Older Patients After Hip Fracture: A Systematic Review and Meta-analysis, Archives of Physical Medicine and Rehabilitation, 100, 101-114.e6, 2019	Intervention not in PICO: Exercise therapy/physical rehabilitation
Lee, J. S., & Van Der Veen, E., Inpatient occupational therapy wash and dress input following hip fracture: Can we reduce dependency on community services?, Age and Ageing, 41, 2012	Published as abstract only
Lee, S. Y., Jung, S. H., Lee, S. U., Ha, Y. C., & Lim, J. Y., Is Occupational Therapy After Hip Fracture Surgery Effective in Improving Function?: A Systematic Review and Meta-Analysis of Randomized Controlled Studies, American journal of physical medicine & rehabilitation, 98, 292-298, 2019	Systematic review, included studies checked for relevance
Lee, S. Y., Yoon, B. H., Beom, J., Ha, Y. C., & Lim, J. Y., Effect of Lower-Limb Progressive Resistance Exercise After Hip Fracture Surgery: A Systematic Review and Meta-Analysis of Randomized Controlled Studies, Journal of the American Medical Directors Association, 18, 1096.e19-1096.e26, 2017	Intervention not in PICO: Resistance Exercise
Leung, C. K., Mok, H. W., Shen, W. Y., Cheung, W. H., & Leung, K. S., Evaluation of cost-effectiveness of a multidisciplinary hip fracture management program in Hong Kong, Osteoporosis International, 24, S597-S598, 2013	Intervention not in PICO: Physical rehabilitation
Loveland-Jones, C., Ferrer, L., Charles, S., Ramsey, F., van Zandt, A., & Volgraf, J., A prospective randomized study of the efficacy of "Turning Point," an inpatient violence intervention program, The journal of trauma and acute care surgery, 81, 834-842, 2016	Outcomes not in PICO: Study reports only Attitudes Toward Guns and Violence Questionnaire - Power/Safety scores
Martín-Martín, L. M., Valenza-Demet, G., Jiménez-Moleón, J. J., Cabrera-Martos, I., Revelles-Moyano, F. J., & Valenza, M. C., Effect of occupational therapy on functional and emotional outcomes after hip fracture treatment: a randomized controlled trial, Clinical Rehabilitation, 28, 541-551, 2014	Intervention/comparison not in PICO: Occupational therapy for basic activities of daily living standard care versus standard care alone
Mischker, A., & Steinhagen-Thiessen, E., Functional capabilities of users of mobility devices after femoral hip fracture, Zeitschrift fur Gerontologie und Geriatrie, 43, 280-284, 2010	Non-English language
Nooijen, C. F., Stam, H. J., Sluis, T., Valent, L., Twisk, J., & Van Den Berg-Emons, R. J., A behavioral intervention promoting physical activity in people with subacute spinal cord injury: secondary effects on health, social participation and quality of life, Clinical Rehabilitation, 31, 772-780, 2017	Intervention not in PICO: The aim of the intervention was to promote physical activity
Pillastrini, P., Mugnai, R., Bonfiglioli, R., Curti, S.,	Intervention and population not in PICO:

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

Study	Reason for Exclusion
Mattioli, S., Maioli, M. G., et al., Evaluation of an occupational therapy program for patients with spinal cord injury, <i>Spinal Cord</i> , 46, 78-81, 2008	Occupational therapy plus neuromotor rehabilitation; neuromotor rehabilitation was aimed at the functional recovery of patients with disorders of neurological origin
Pol, M. C., Ter Riet, G., van Hartingsveldt, M., Kroese, B., & Buurman, B. M., Effectiveness of sensor monitoring in a rehabilitation programme for older patients after hip fracture: a three-arm stepped wedge randomised trial, <i>Age and Ageing</i> , 2019	Cross-over study design
Purtle, J., Carter, P. M., Cunningham, R., & Fein, J. A., Treating Youth Violence in Hospital and Emergency Department Settings, <i>Adolescent medicine: state of the art reviews</i> , 27, 351-363, 2016	Narrative review
Quel de Oliveira, C., Refshauge, K., Middleton, J., de Jong, L., & Davis, G. M., Effects of Activity-Based Therapy Interventions on Mobility, Independence, and Quality of Life for People with Spinal Cord Injuries: A Systematic Review and Meta-Analysis, <i>Journal of neurotrauma</i> , 34, 1726-1743, 2017	Intervention not in PICO: Activity-Based Therapy Interventions i.e. Electrical stimulation assisted exercises, facilitation techniques (tactile or vibration stimulation), body-weight supported locomotor training (manually or robotically assisted), upper extremity robotics, massed practice training
Scivoletto, G., Morganti, B., Cosentino, E., & Molinari, M., Utility of delayed spinal cord injury rehabilitation: An Italian study, <i>Neurological Sciences</i> , 27, 86-90, 2006	Non-randomised study, n=117
Shibru, D., Zahnd, E., Becker, M., Bekaert, N., Calhoun, D., & Victorino, G. P., Benefits of a hospital-based peer intervention program for violently injured youth, <i>Journal of the American College of Surgeons</i> , 205, 684-9, 2007	Non-randomised study, n=154
Snider, C. E., Jiang, D., Logsetty, S., Chernomas, W., Mordoch, E., Cochrane, C., Mahmood, J., et al., Feasibility and efficacy of a hospital-based violence intervention program on reducing repeat violent injury in youth: a randomized control trial, <i>CJEM</i> , 1-8, 2019	Outcomes not in PICO: Study reports repeat violence related injury, post-enrolment substance use and mental health visits, education, death, length of stay at accident and emergency (if discharged), but not emergency department or hospital admission for violent crime
Spence, S. H., Sharpe, L., Newton-John, T., & Champion, D., Effect of EMG biofeedback compared to applied relaxation training with chronic, upper extremity cumulative trauma disorders, <i>Pain</i> , 63, 199-206, 1995	Population not in PICO: People with musculoskeletal pain problems in the upper limbs, neck and/or shoulders
Spooren, A. I., Janssen-Potten, Y. J., Kerckhofs, E., & Seelen, H. A., Outcome of motor training programmes on arm and hand functioning in patients with cervical spinal cord injury according to different levels of the ICF: a systematic review, <i>Journal of Rehabilitation Medicine</i> , 41, 497-505, 2009	Systematic review, included studies checked for relevance
Tsai, I. H., Graves, D. E., & Lai, C. H., The association of assistive mobility devices and social participation in people with spinal cord injuries, <i>Spinal Cord</i> , 52, 209-215, 2014	Non-comparative study
Turunen, K., Salpakoski, A., Edgren, J., Törmäkangas, T., Arkela, M., Kallinen, M., et al., Physical Activity After a Hip Fracture: effect of a	Intervention not in PICO: The aim on the intervention was promoting physical activity

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

Study	Reason for Exclusion
Multicomponent Home-Based Rehabilitation Program-A Secondary Analysis of a Randomized Controlled Trial, Archives of Physical Medicine and Rehabilitation, 98, 981-988, 2017	
Uda, K., Matsui, H., Fushimi, K., & Yasunaga, H., Intensive In-Hospital Rehabilitation After Hip Fracture Surgery and Activities of Daily Living in Patients With Dementia: Retrospective Analysis of a Nationwide Inpatient Database, Archives of Physical Medicine and Rehabilitation, 100, 2301-2307, 2019	Non-comparative study
Uruma, M., Momosaki, R., Chono, M., Fukumoto, M., Watanabe, T., Nakamura, M., & Abo, M., Effectiveness of acute in-hospital occupational therapy for older patients with hip fracture, Geriatrics & gerontology international, 19, 611-615, 2019	Intervention/comparison not in PICO: Occupational therapy for basic activities of daily living versus no occupational therapy
Van Velzen, J. M., De Groot, S., Post, M. W. M., Sloopman, J. R., Van Bennekom, C. A. M., & Van Der Woude, L. H. V., Return to work after spinal cord injury: Is it related to wheelchair capacity at discharge from clinical rehabilitation?, American Journal of Physical Medicine and Rehabilitation, 88, 47-56, 2009	Non-randomised study, n=118
van Velzen, J. M., van Leeuwen, C. M., de Groot, S., van der Woude, L. H., Faber, W. X., & Post, M. W., Return to work five years after spinal cord injury inpatient rehabilitation: is it related to wheelchair capacity at discharge?, Journal of rehabilitation medicine : official journal of the UEMS European Board of Physical and Rehabilitation Medicine, 44, 73-79, 2012	Non-randomised study, n=103
Voon, K., Silberstein, I., Eranki, A., Phillips, M., Wood, F. M., & Edgar, D. W., Xbox Kinect™ based rehabilitation as a feasible adjunct for minor upper limb burns rehabilitation: a pilot RCT, Burns, 42, 1797-1804, 2016	Intervention not in PICO: Exercise/physical rehabilitation
Yeo, S. S., & Kwon, J. W. Wheelchair Skills Training for Functional Activity in Adults with Cervical Spinal Cord Injury, International Journal of Sports Medicine, 39, 924-928, 2018	Comparison not in PICO: Wheelchair plus wheelchair specific training versus wheelchair plus wheelchair non-specific training (i.e. all participants had a wheelchair)
You, J. S., Kim, Y. L., & Lee, S. M., Effects of a standard transfer exercise program on transfer quality and activities of daily living for transfer-dependent spinal cord injury patients, Journal of physical therapy science, 29, 478-483, 2017	Intervention not in PICO i.e. Transfer exercise program
Zatzick, D., Russo, J., Lord, S. P., Varley, C., Wang, J., Berliner, L., et al., Collaborative care intervention targeting violence risk behaviors, substance use, and posttraumatic stress and depressive symptoms in injured adolescents: a randomized clinical trial, JAMA pediatrics, 168, 532-539, 2014	Population and intervention not in PICO: Adolescent survivors of traumatic injuries; intervention included care management and evidence-based motivational interviewing targeting risk behaviours and substance use as well as pharmacotherapy and cognitive behavioural therapy elements targeting high levels of post-traumatic stress disorder and depressive symptoms
Zidén, L., Frändin, K., & Kreuter, M., Home rehabilitation after hip fracture. A randomized	Intervention/comparison not in PICO: Home based rehabilitation program after

Study	Reason for Exclusion
controlled study on balance confidence, physical function and everyday activities, <i>Clinical Rehabilitation</i> , 22, 1019-1033, 2008	discharge, including occupational therapy only for basic activities of daily living versus no rehabilitation after discharge

Economic studies: Adults

Table 11: Excluded studies and reasons for their exclusion

Study	Reason for Exclusion
Cyr, K., Barrett, N., & Snider, C., Assigning costs to visits for injuries due to youth violence-the first step in a cost-effectiveness analysis, <i>Canadian Journal of Emergency Medicine</i> , 17, S59, 2015	Conference abstract
Purtle, J., Dicker, R., Cooper, C., Corbin, T., Greene, M. B., Marks, A., et al., Hospital-based violence intervention programs save lives and money, <i>The journal of trauma and acute care surgery</i> , 75, 331-3, 2013	Opinion piece
Shibru, D., Zahnd, E., Becker, M., Bekaert, N., Calhoun, D., & Victorino, G. P., Benefits of a hospital-based peer intervention program for violently injured youth. <i>Journal of the American College of Surgeons</i> , 205, 684-689, 2007	Older than 10 years
Smith, T., Chicago hospital tries to save money and lives through violence prevention, <i>Health care strategic management</i> , 15, 18-20, 1997	Narrative overview
Wooster, J., DeMark, L., & Mclver, R. J., Integration of a hybrid program: Impacting individualized therapy outcomes, <i>Archives of Physical Medicine and Rehabilitation</i> , 96, e28, 2015	Non-comparative observational study

Excluded clinical and economic studies for review questions: B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?

Clinical studies: Children and young people

Table 12: Excluded studies and reasons for their exclusion

Study	Reason for Exclusion
Aboutanos, M. B., Jordan, A., Cohen, R., Foster, R. L., Goodman, K., & Halfond R. W., Brief violence interventions with community case management services are effective for high-risk trauma patients, <i>The Journal of trauma</i> , 71, 228-227, 2011	Comparisons not in PICO: Brief violence intervention plus community case management services versus brief violence intervention alone
Affinati, S., Patton, D., Hansen, L., Ranney, M., Christmas, A.B., Violano, P., et al., Hospital-based violence intervention programs targeting adult populations: an Eastern Association for the Surgery of Trauma evidence-based review, <i>Trauma surgery & acute care open</i> , 1, e000024, 2016	Systematic review, included studies checked for relevance
Andrew, N., Gabbe, B., Wolfe, R., & Cameron, P.,	Published as abstract only

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

Study	Reason for Exclusion
The long term impact of hospitalised orthopaedic sport and active recreation injuries on health related quality of life and physical activity levels, Journal of Science and Medicine in Sport, 14, e96, 2011	
Asplin, G., Carlsson, G., Zidén, L., & Kjellby-Wendt, G., Early coordinated rehabilitation in acute phase after hip fracture - a model for increased patient participation, BMC Geriatrics, 17, 240, 2017	Intervention not in PICO: Coordinated comprehensive rehabilitation that comprised psychological and physical component
Auais, M.A., Eilayyan, O., & Mayo, N.E., Extended exercise rehabilitation after hip fracture improves patients' physical function: a systematic review and meta-analysis, Physical therapy, 92, 1437-51, 2012	Intervention not in PICO: Exercise/physical rehabilitation
Betts, A.C., Froehlich-Grobe, K., Driver, S., Carlton, D. & Kramer, M.K., Reducing barriers to healthy weight: Planned and responsive adaptations to a lifestyle intervention to serve people with impaired mobility, Disability and health journal, 11, 315-323, 2018	Population not in PICO: Mixed population of people with spinal cord injury, multiple sclerosis, stroke, cancer, osteoarthritis, orthopaedic problems, and other aetiologies that resulted in impaired mobility; non-comparative study (describes an adapted evidence-based lifestyle intervention)
Chen, L.K., Home-based post-acute care for older patients with hip fracture in Taiwan: A prospective cohort study, European Geriatric Medicine, 2, S205, 2011	Intervention not in PICO: Comprehensive geriatric assessment -based multidisciplinary intervention
Cheng, T.L., Haynie, D., Brenner, R., Wright, J. L., Chung, S.E., & Simons-Morton, B., Effectiveness of a mentor-implemented, violence prevention intervention for assault-injured youths presenting to the emergency department: Results of a randomized trial, Pediatrics, 122, 938-946, 2008	Outcomes not in PICO: Study reports fight injuries, fight risk, carry a knife, misdemeanour, friend behaviour, aggressions core, attitude about interpersonal violence, attitudes toward retaliation, social competence, conflict avoidance self-efficacy, Child Behavior Checklist (CBCL) aggression subscale
Cooper, C., Eslinger, D.M., & Stolley, P.D., Hospital-based violence intervention programs work. Journal of Trauma and Acute Care Surgery, 61, 534-540, 2006	Population not in PICO: Adults
Crawford, J.R., Khan, R.J., & Varley, G.W., Early management and outcome following soft tissue injuries of the neck-a randomised controlled trial, Injury, 35, 891-895, 2004	Intervention not in PICO: All people were initially supplied with a standard soft cervical collar and non-steroidal anti-inflammatory medication from the accident and emergency department, and were referred to the research clinic held twice weekly. Also, people were not admitted.
Cunningham, R.M., Chermack, S.T., Shope, J.T., Bingham, C.R., Zimmerman, M.A., Blow, F.C., & Walton, M.A., Twelve-month outcomes from the "saferteen" study: An alcohol and violence brief intervention for adolescents in the emergency department, Alcoholism: Clinical and Experimental Research, 35, 213A, 2011	Intervention not in PICO: Combined violence and alcohol intervention
Daniel, A., & Manigandan, C., Efficacy of leisure intervention groups and their impact on quality of life among people with spinal cord injury, International journal of rehabilitation research. Internationale Zeitschrift fur Rehabilitationsforschung. Revue internationale de recherches de readaptation, 28, 43-	Non-randomised study, n=50

Study	Reason for Exclusion
8, 2005	
Dattoli, S., Colucci, M., Soave, M. G., De Santis, R., Segaletti, L., Corsi, C., et al., Evaluation of pelvis postural systems in spinal cord injury patients: Outcome research, Journal of Spinal Cord Medicine, 1-13, 2018	Cross-over study design
Florence, C., Shepherd, J., Brennan, I., & Simon, T., Effectiveness of anonymised information sharing and use in health service, police, and local government partnership for preventing violence related injury: experimental study and time series analysis, BMJ (Clinical research ed.), 342, d3313, 2011	Intervention not in PICO: Community partnership between the health service, police, and local government partners designed to prevent violence (pedestrianizing sections of a city centre street where bars and nightclubs are mainly concentrated, mandatory use of plastic glassware in selected licensed premises, and more frequent late night public transport services)
Forchheimer, M., & Tate, D. G., Enhancing community re-integration following spinal cord injury, NeuroRehabilitation, 19, 103-13, 2004	Non-randomised study, n=81
Furmaniuk, L., Cywińska-Wasilewska, G., & Kaczmarek, D., Influence of long-term wheelchair rugby training on the functional abilities in persons with tetraplegia over a two-year post-spinal cord injury, Journal of Rehabilitation Medicine, 42, 688-690, 2010	Non-randomised study, n=40
Furmaniuk, L., & Cywinska-Wasilewska, G., Evaluation of changes in functional independence of spinal cord injury survivors during Active Rehabilitation camps, Fizjoterapia, 17, 17-24, 2009	Non-randomised study, n=40
George, S., Barr, C., Jarvis, N., Neeson, S., Nussio, A., Liddle, J., The impact of a driving cessation program on community participation goals following complex trauma injury: a randomised controlled trial of the carfreeme TI program, Brain Impairment, 19, 310, 2018	Cross-over study design
Guzelkucuk, U., Duman, I., Taskaynatan, M. A., & Dincer, K., Comparison of therapeutic activities with therapeutic exercises in the rehabilitation of young adult patients with hand injuries, The Journal of hand surgery, 32, 1429-35, 2007	Intervention not in PICO: Physical therapy and exercise programme
Hagsten, B., Svensson, O., & Gardulf, A., Early individualized postoperative occupational therapy training in 100 patients improves ADL after hip fracture: a randomized trial, Acta Orthopaedica Scandinavica, 75, 177-83, 2004	Intervention/comparison not in PICO: Occupational therapy focusing on basic activities of daily living (bathing/hygiene, dressing, mobility, toilet visits) versus standard care
Hagsten, B., Svensson, O., & Gardulf, A., Health-related quality of life and self-reported ability concerning ADL and IADL after hip fracture: a randomized trial, Acta orthopaedica, 77, 114-9, 2006	Intervention/comparison not in PICO: Occupational therapy focusing on basic activities of daily living (bathing/hygiene, dressing, mobility, toilet visits) versus standard care
Hasebe, K., Momosaki, R., Sawabe, M., Chono, M., Sawaguchi, A., & Kasuga, S., Effectiveness of weekend physical rehabilitation for functional recovery in geriatric patients with hip fracture, Geriatrics & gerontology international, 18, 1143-1146, 2018	Intervention not in PICO: Weekend versus non-weekend rehabilitation

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

Study	Reason for Exclusion
Herbold, J. A., Bonistall, K., & Walsh, M. B., Rehabilitation following total knee replacement, total hip replacement, and hip fracture: a case-controlled comparison, <i>Journal of geriatric physical therapy</i> (2001), 34, 155-60, 2011	Intervention not in PICO: Inpatient rehabilitation facility versus skilled nursing facility
Huusko, T. M., Karppi, P., Avikainen, V., Kautiainen, H., & Sulkava, R., Intensive geriatric rehabilitation of hip fracture patients: a randomized, controlled trial, <i>Acta orthopaedica Scandinavica</i> , 73, 425-31, 2002	Unclear intervention: Content of rehabilitation program not clearly reported for the intervention or control groups
Kagaya, H., & Shimada, Y., Treatment and rehabilitation after hip fracture in the elderly, <i>Critical Reviews in Physical and Rehabilitation Medicine</i> , 19, 97-113, 2007	Narrative review
Kapadia, N. M., Bagher, S., & Popovic, M. R., Influence of different rehabilitation therapy models on patient outcomes: Hand function therapy in individuals with incomplete SCI, <i>Journal of Spinal Cord Medicine</i> , 37, 734-743, 2014	Intervention not in PICO: functional electrical stimulation therapy plus occupational therapy
Karlsson, Å., Berggren, M., Gustafson, Y., Olofsson, B., Lindelöf, N., & Stenvall, M., Effects of Geriatric Interdisciplinary Home Rehabilitation on Independence in Activities of Daily Living in Older People with Hip Fracture: A Randomized Controlled Trial, <i>Archives of Physical Medicine and Rehabilitation</i> , 2020	Interventions not in PICO: Early home rehabilitation (early discharge from the hospital and continuation of rehabilitation in their homes) versus rehabilitation on geriatric ward
Karni, S., Bentur, N., & Ratzon, N., Participation and quality of life of cognitively impaired older women in Israel following hip fractures, <i>Occupational therapy international</i> , 21, 91-7, 2014	Non-randomised study, n=60
Kazemi, D. M., Jacobs, D. G., Portwood, S. G., Veach, L., Zhou, W., & Hurley, M. J., Trauma Center Youth Violence Screening and Brief Interventions: A Multisite Pilot Feasibility Study, <i>Violence and victims</i> , 32, 251-264, 2017	Non-randomised study, n=38
Kiser, K., Plan of action. Physicians are working with the City of Minneapolis to keep kids from becoming repeat victims of violence, <i>Minnesota medicine</i> , 92, 10-1, 2009	Opinion piece/overview
Kuijlaars, I. A., Sweerts, L., Nijhuis-van der Sanden, M. W., van Balen, R., Staal, J. B., van Meeteren, N. L., & Hoogeboom, T. J., Effectiveness of Supervised Home-Based Exercise Therapy Compared to a Control Intervention on Functions, Activities, and Participation in Older Patients After Hip Fracture: A Systematic Review and Meta-analysis, <i>Archives of Physical Medicine and Rehabilitation</i> , 100, 101-114.e6, 2019	Intervention not in PICO: Exercise therapy/physical rehabilitation
Lee, J. S., & Van Der Veen, E., Inpatient occupational therapy wash and dress input following hip fracture: Can we reduce dependency on community services?, <i>Age and Ageing</i> , 41, 2012	Published as abstract only
Lee, S. Y., Jung, S. H., Lee, S. U., Ha, Y. C., & Lim, J. Y., Is Occupational Therapy After Hip Fracture Surgery Effective in Improving Function?: A Systematic Review and Meta-Analysis of Randomized Controlled Studies, <i>American journal of</i>	Systematic review, included studies checked for relevance

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

Study	Reason for Exclusion
physical medicine & rehabilitation, 98, 292-298, 2019	
Lee, S. Y., Yoon, B. H., Beom, J., Ha, Y. C., & Lim, J. Y., Effect of Lower-Limb Progressive Resistance Exercise After Hip Fracture Surgery: A Systematic Review and Meta-Analysis of Randomized Controlled Studies, Journal of the American Medical Directors Association, 18, 1096.e19-1096.e26, 2017	Intervention not in PICO: Resistance Exercise
Leung, C. K., Mok, H. W., Shen, W. Y., Cheung, W. H., & Leung, K. S., Evaluation of cost-effectiveness of a multidisciplinary hip fracture management program in Hong Kong, Osteoporosis International, 24, S597-S598, 2013	Intervention not in PICO: Physical rehabilitation
Loveland-Jones, C., Ferrer, L., Charles, S., Ramsey, F., van Zandt, A., & Volgraf, J., A prospective randomized study of the efficacy of "Turning Point," an inpatient violence intervention program, The journal of trauma and acute care surgery, 81, 834-842, 2016	Outcomes not in PICO: Study reports only Attitudes Toward Guns and Violence Questionnaire - Power/Safety scores
Martín-Martín, L. M., Valenza-Demet, G., Jiménez-Moleón, J. J., Cabrera-Martos, I., Revelles-Moyano, F. J., & Valenza, M. C., Effect of occupational therapy on functional and emotional outcomes after hip fracture treatment: a randomized controlled trial, Clinical Rehabilitation, 28, 541-551, 2014	Intervention/comparison not in PICO: Occupational therapy for basic activities of daily living standard care versus standard care alone
Mischker, A., & Steinhagen-Thiessen, E., Functional capabilities of users of mobility devices after femoral hip fracture, Zeitschrift fur Gerontologie und Geriatrie, 43, 280-284, 2010	Non-English language
Nooijen, C. F., Stam, H. J., Sluis, T., Valent, L., Twisk, J., & Van Den Berg-Emons, R. J., A behavioral intervention promoting physical activity in people with subacute spinal cord injury: secondary effects on health, social participation and quality of life, Clinical Rehabilitation, 31, 772-780, 2017	Intervention not in PICO: The aim of the intervention was to promote physical activity
Pillastrini, P., Mugnai, R., Bonfiglioli, R., Curti, S., Mattioli, S., Maioli, M. G., et al., Evaluation of an occupational therapy program for patients with spinal cord injury, Spinal Cord, 46, 78-81, 2008	Intervention and population not in PICO: Occupational therapy plus neuromotor rehabilitation; neuromotor rehabilitation was aimed at the functional recovery of patients with disorders of neurological origin
Pol, M. C., Ter Riet, G., van Hartingsveldt, M., Kroese, B., & Buurman, B. M., Effectiveness of sensor monitoring in a rehabilitation programme for older patients after hip fracture: a three-arm stepped wedge randomised trial, Age and Ageing, 2019	Cross-over study design
Purtle, J., Carter, P. M., Cunningham, R., & Fein, J. A., Treating Youth Violence in Hospital and Emergency Department Settings, Adolescent medicine: state of the art reviews, 27, 351-363, 2016	Narrative review
Quel de Oliveira, C., Refshauge, K., Middleton, J., de Jong, L., & Davis, G. M., Effects of Activity-Based Therapy Interventions on Mobility, Independence, and Quality of Life for People with Spinal Cord Injuries: A Systematic Review and Meta-Analysis, Journal of neurotrauma, 34, 1726-1743, 2017	Intervention not in PICO: Activity-Based Therapy Interventions i.e. Electrical stimulation assisted exercises, facilitation techniques (tactile or vibration stimulation), body-weight supported locomotor training (manually or robotically assisted), upper

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

Study	Reason for Exclusion
	extremity robotics, massed practice training
Scivoletto, G., Morganti, B., Cosentino, E., & Molinari, M., Utility of delayed spinal cord injury rehabilitation: An Italian study, <i>Neurological Sciences</i> , 27, 86-90, 2006	Non-randomised study, n=117
Shibru, D., Zahnd, E., Becker, M., Bekaert, N., Calhoun, D., & Victorino, G. P., Benefits of a hospital-based peer intervention program for violently injured youth, <i>Journal of the American College of Surgeons</i> , 205, 684-9, 2007	Non-randomised study, n=154
Snider, C. E., Jiang, D., Logsetty, S., Chernomas, W., Mordoch, E., Cochrane, C., Mahmood, J., et al., Feasibility and efficacy of a hospital-based violence intervention program on reducing repeat violent injury in youth: a randomized control trial, <i>CJEM</i> , 1-8, 2019	Outcomes not in PICO: Study reports repeat violence related injury, post-enrolment substance use and mental health visits, education, death, length of stay at accident and emergency (if discharged), but not emergency department or hospital admission for violent crime
Spence, S. H., Sharpe, L., Newton-John, T., & Champion, D., Effect of EMG biofeedback compared to applied relaxation training with chronic, upper extremity cumulative trauma disorders, <i>Pain</i> , 63, 199-206, 1995	Population not in PICO: People with musculoskeletal pain problems in the upper limbs, neck and/or shoulders
Spooren, A. I., Janssen-Potten, Y. J., Kerckhofs, E., & Seelen, H. A., Outcome of motor training programmes on arm and hand functioning in patients with cervical spinal cord injury according to different levels of the ICF: a systematic review, <i>Journal of Rehabilitation Medicine</i> , 41, 497-505, 2009	Systematic review, included studies checked for relevance
Tsai, I. H., Graves, D. E., & Lai, C. H., The association of assistive mobility devices and social participation in people with spinal cord injuries, <i>Spinal Cord</i> , 52, 209-215, 2014	Non-comparative study
Turunen, K., Salpakoski, A., Edgren, J., Törmäkangas, T., Arkela, M., Kallinen, M., et al., Physical Activity After a Hip Fracture: effect of a Multicomponent Home-Based Rehabilitation Program-A Secondary Analysis of a Randomized Controlled Trial, <i>Archives of Physical Medicine and Rehabilitation</i> , 98, 981-988, 2017	Intervention not in PICO: The aim on the intervention was promoting physical activity
Uda, K., Matsui, H., Fushimi, K., & Yasunaga, H., Intensive In-Hospital Rehabilitation After Hip Fracture Surgery and Activities of Daily Living in Patients With Dementia: Retrospective Analysis of a Nationwide Inpatient Database, <i>Archives of Physical Medicine and Rehabilitation</i> , 100, 2301-2307, 2019	Non-comparative study
Uruma, M., Momosaki, R., Chono, M., Fukumoto, M., Watanabe, T., Nakamura, M., & Abo, M., Effectiveness of acute in-hospital occupational therapy for older patients with hip fracture, <i>Geriatrics & gerontology international</i> , 19, 611-615, 2019	Intervention/comparison not in PICO: Occupational therapy for basic activities of daily living versus no occupational therapy
Van Velzen, J. M., De Groot, S., Post, M. W. M., Sloopman, J. R., Van Bennekom, C. A. M., & Van Der Woude, L. H. V., Return to work after spinal cord injury: Is it related to wheelchair capacity at discharge from clinical rehabilitation?, <i>American Journal of</i>	Non-randomised study, n=118

DRAFT FOR CONSULTATION

Rehabilitation interventions relating to participation in society for people with complex rehabilitation needs after traumatic injury

Study	Reason for Exclusion
Physical Medicine and Rehabilitation, 88, 47-56, 2009	
van Velzen, J. M., van Leeuwen, C. M., de Groot, S., van der Woude, L. H., Faber, W. X., & Post, M. W., Return to work five years after spinal cord injury inpatient rehabilitation: is it related to wheelchair capacity at discharge?, Journal of rehabilitation medicine : official journal of the UEMS European Board of Physical and Rehabilitation Medicine, 44, 73-79, 2012	Non-randomised study, n=103
Voon, K., Silberstein, I., Eranki, A., Phillips, M., Wood, F. M., & Edgar, D. W., Xbox Kinect™ based rehabilitation as a feasible adjunct for minor upper limb burns rehabilitation: a pilot RCT, Burns, 42, 1797-1804, 2016	Intervention not in PICO: Exercise/physical rehabilitation
Yeo, S. S., & Kwon, J. W. Wheelchair Skills Training for Functional Activity in Adults with Cervical Spinal Cord Injury, International Journal of Sports Medicine, 39, 924-928, 2018	Comparison not in PICO: Wheelchair plus wheelchair specific training versus wheelchair plus wheelchair non-specific training (i.e. all participants had a wheelchair)
You, J. S., Kim, Y. L., & Lee, S. M., Effects of a standard transfer exercise program on transfer quality and activities of daily living for transfer-dependent spinal cord injury patients, Journal of physical therapy science, 29, 478-483, 2017	Intervention not in PICO i.e. Transfer exercise program
Zatzick, D., Russo, J., Lord, S. P., Varley, C., Wang, J., Berliner, L., et al., Collaborative care intervention targeting violence risk behaviors, substance use, and posttraumatic stress and depressive symptoms in injured adolescents: a randomized clinical trial, JAMA pediatrics, 168, 532-539, 2014	Population and intervention not in PICO: Adolescent survivors of traumatic injuries; intervention included care management and evidence-based motivational interviewing targeting risk behaviours and substance use as well as pharmacotherapy and cognitive behavioural therapy elements targeting high levels of post-traumatic stress disorder and depressive symptoms
Zidén, L., Frändin, K., & Kreuter, M., Home rehabilitation after hip fracture. A randomized controlled study on balance confidence, physical function and everyday activities, Clinical Rehabilitation, 22, 1019-1033, 2008	Intervention/comparison not in PICO: Home based rehabilitation program after discharge, including occupational therapy only for basic activities of daily living versus no rehabilitation after discharge

Economic studies: Children and young people**Table 13: Excluded studies and reasons for their exclusion**

Study	Reason for Exclusion
Cyr, K., Barrett, N., & Snider, C., Assigning costs to visits for injuries due to youth violence-the first step in a cost-effectiveness analysis, Canadian Journal of Emergency Medicine, 17, S59, 2015	Conference abstract
Purtle, J., Dicker, R., Cooper, C., Corbin, T., Greene, M. B., Marks, A., et al., Hospital-based violence intervention programs save lives and money, The journal of trauma and acute care surgery, 75, 331-3, 2013	Opinion piece
Shibru, D., Zahnd, E., Becker, M., Bekaert, N., Calhoun, D., & Victorino, G. P., Benefits of a hospital-based peer intervention program for violently injured youth. Journal of the American College of Surgeons, 205, 684-689, 2007	Older than 10 years
Smith, T., Chicago hospital tries to save money and lives through violence prevention, Health care strategic management, 15, 18-20, 1997	Narrative overview
Wooster, J., DeMark, L., & McIver, R. J., Integration of a hybrid program: Impacting individualized therapy outcomes, Archives of Physical Medicine and Rehabilitation, 96, e28, 2015	Non-comparative observational study
Chong, V. E., Smith, R., Garcia, A., Lee, W. S., Ashley, L., Marks, A., et al., Hospital-centered violence intervention programs: a cost-effectiveness analysis. The American Journal of Surgery, 209, 597-603, 2015	Adults
Purtle, J., Rich, L. J., Bloom, S. L., Rich, J. A., & Corbin, T. J., Cost- benefit analysis simulation of a hospital-based violence intervention program. American journal of preventive medicine, 48, 162-169, 2015	Adults

Appendix L – Research recommendations

Research recommendations for: B.4a What rehabilitation interventions relating to participation in society are effective and acceptable for adults with complex rehabilitation needs after traumatic injury?

No research recommendations were made for this review question.

Research recommendations for: B.4b What rehabilitation interventions relating to participation in society are effective and acceptable for children and young people with complex rehabilitation needs after traumatic injury?

No research recommendations were made for this review question.