

**NORTH EAST QUALITY OBSERVATORY SERVICE
(NATIONAL COLLABORATING CENTRE
FOR INDICATOR DEVELOPMENT)**

FOR

**NATIONAL INSTITUTE FOR HEALTH AND CARE
EXCELLENCE**

INDICATOR DEVELOPMENT PROGRAMME

Feedback report on piloted indicators

Topic area: Multimorbidity and frailty

Pilot period: 13th December 2018 – 31st March 2019

IAC meeting date: 4th June 2019

Output: Recommendations for NICE indicator menu

Contents

Summary of recommendations	3
Indicator 1 Multimorbidity register	3
Indicator 2 Frailty register	5
Indicator 3 Structured medication review	6
Indicator 4 Falls prevention	7
Background	8
Practice recruitment	8
Assessment of feasibility, reliability and acceptability	9
Feasibility and reliability	9
Acceptability (topic)	9
Indicator 1 Multimorbidity register	11
Indicator 2 Frailty register	16
Indicator 3 Structured medication review	19
Indicator 4 Falls prevention	22
Additional areas explored by the pilot (coding of polypharmacy, vulnerable patients and residential status)	24
Assessment of implementation	25
Assessment of piloting achievement	25
Practices' views on implementation issues (including impact)	27
Changes in practice organisation	29
Workload, resource utilisation and costs	31
Barriers to implementation	33
Assessment of exception reporting (or future Personalised Care Adjustment)	34
Assessment of potential unintended consequences	34
Assessment of overlap with and/or impact on existing QOF indicators	35
Suggested amendments to indicator wording (summary)	35
Appendix A: Practice recruitment	36
Appendix B: Indicator development	37
Appendix C: Acceptability and implementation recommendations	39
Appendix D: Condition clusters	40

Summary of recommendations

Indicator 1 Multimorbidity register

The practice can produce a register of people with multimorbidity who would benefit from a tailored approach to care. (Where, for the purposes of the pilot, patients with multimorbidity are defined as those with 4 or more condition clusters supplemented by clinical judgement).

Acceptability assessment

More than 70% of practices support inclusion of an indicator in this area; however, comments relating to improving the quality of care for patients are more varied on this specific register proposal.

Implementation assessment

Major problems identified by some practices during piloting or anticipated in wider implementation, mainly with regard to the presence of existing local schemes and with the identification of patients eligible for the register. Potentially resolvable through the actions identified in the table below but may also require further testing prior to widespread implementation.

Issues to be resolved prior to implementation

Issue	Detail	Mitigating activity
Practices / CCGs have established schemes already in place	Existing schemes mostly in frailty but some relating to multimorbidity (particularly medication review or single annual review). Potential lack of buy-in from some practices in existing schemes.	Review content of these for overlap / gaps – and opportunity to obtain lessons learned.
Multimorbidity (MM) definition	Complex, may produce large patient numbers if searches run locally.	Clinical system suppliers providing the searches or patient list for refinement / national template production (for consistency), including the availability of a multimorbidity clinical code to use as a 'flag'.

Item 5e(ii)

Issue	Detail	Mitigating activity
Multimorbidity definition (continued)		A data validation exercise to improve coding accuracy and reduce data quality issues may be required in conjunction with the above.
If multimorbidity list is produced by suppliers – may reduce ‘ownership’ by practices	Practices may not ‘accept’ the generated list as their register, if not following the guidance on review/refinement of the generated list and/or inclusion of additional patients not fitting the criteria but clinically judged to require register entry.	<p>Emphasise guidance on review/clinical judgement.</p> <p>Validation exercise containing expected prevalence for each practice (based on an NHSD search).</p> <p>Include using Quarter 1 in QOF in year 1 as a development period.</p>
Time frame for MM register	Should this be an annually created register, set on 1 st April, or one that is constantly changing based on the population?	

Item 5e(ii)

Indicator 2 Frailty register

The practice can produce a register of people with moderate or severe frailty, defined as those patients who have been diagnosed using an appropriate tool and applying clinical judgement (in accordance with the GP core contract data collection).

Acceptability assessment

66% of practices support inclusion, however there were more varied comments about the process of producing the register and the inclusion of people with moderate frailty.

Implementation assessment

Minor problems identified during piloting, potentially resolvable through the actions in the table below.

Issues to be resolved prior to implementation

Issue	Detail	Mitigating activity
Frailty definition (moderate and severe)	Produces large patient numbers, impact on appointment and administrative time.	Further guidance on clinical assessment, in order that the practice validates the register using clinical judgement to assess suitability for the register
Time frame for frailty register	Once on the register, could it be feasible for the person to come off it again? Is this constantly changing?	Further guidance for clinical assessment (to determine if, in these cases, the patient was suitable for the register initially?)

Item 5e(ii)

Indicator 3 Structured medication review

The percentage of patients with moderate or severe frailty and/or multimorbidity who have received a medication review in the last 12 months which is structured, has considered the use of a recognised tool and has taken place as a shared discussion.

Acceptability assessment

More than 80% practices support inclusion.

Implementation assessment

Minor problems identified during piloting potentially resolvable as in the table below.

Issues to be resolved prior to implementation

Issue	Detail	Mitigating activity
Reporting of 'de-prescribing'	Reducing treatment burden is a key part of this indicator and practices would like the ability to report this in the patient record.	Relevant clinical codes?
Whether reviews have to be face to face?	Reported as an issue by some practices, particularly for housebound patients.	
Use of 'with patient' codes for medication reviews	Some practices reverted to their usual medication review codes rather than using the 'with patient' codes provided in the business rules.	Incentivisation of use of the desired codes.

Item 5e(ii)

Indicator 4 Falls prevention

The percentage of patients (aged 65 years and over) with moderate or severe frailty who have been asked:

- Whether they have had a fall, about the total number of falls and about the type of falls, in the preceding 12 months.
- And, if at risk, have been provided with advice and guidance with regard to falls prevention (in the preceding 12 months).

Acceptability assessment

More than 70% practices supported inclusion.

Implementation assessment

Minor problems identified through piloting, possibly resolvable through commissioning activity as identified in the table below.

Issues to be resolved prior to implementation

Issue	Detail	Mitigating activity
Capacity of supporting services	Falls clinics capacity, onward referrals, waiting times.	Commissioners to resolve. Options to prioritise those at the severe end of the moderately frail group for referral?

Background

As part of the NICE indicator development process, all clinical and health improvement indicators for general practice proposed for inclusion in the NICE Indicator Menu are piloted, using an agreed methodology, in a representative sample of GP practices across England.

The aim of piloting is to test whether indicators work in practice, have any unintended consequences and are fit for purpose.

A list of piloted indicators for this topic is shown in Appendix B.

Practice recruitment

Number of practices recruited	30
Number of practices withdrawing	4
Final number of practices in the pilot	26
Number of practices participating in feedback	25

Feedback was obtained via interviews and survey, and it was possible for individuals to participate in both the survey and the interviews.

Feedback participation by role and method

Staff role	Survey	Interview	Interviews for Multimorbidity & frailty topic
GP	14	18	12
Practice Manager	13	15	10
Other senior management	3	4	4
Admin staff (including finance, IT, performance)	2		
Number of participants	32 (25 practices)	37 (25 practices)	26 (18 practices)

Assessment of feasibility, reliability and acceptability

Feasibility and reliability

It was possible to develop Business Rules to support this topic and all indicators within it; however, due to the relative complexity of the multimorbidity register definition and the variable level of coding engagement by some practices during the pilot, this indicator may require further testing prior to widespread implementation.

Acceptability (topic)

Practices were strongly supportive of the importance of this topic and the potential for incentivised indicators in this area, but views were more mixed on the suitability of the topic for non-incentivised improvement indicators. Other issues identified included the potential overlap with existing schemes, although respondents still saw benefit from the piloted indicators even where schemes were in place.

The majority (91%, 29/32) of survey respondents considered the topic of multimorbidity and frailty to represent what is important to patients, families and carers. There was also general agreement that the topic represents what it is important to clinical staff (88%, 28), with 2 people disagreeing and the remaining 2 being unsure.

“Multimorbidity and frailty puts a very big burden on families”. (GP, survey)

“It’s about maintaining people independently”. (Practice manager, interview)

(These) “are important issues that need to be taken into consideration when treating patients holistically”. (Practice senior manager, survey).

“Frailty isn’t a single thing. It is made up of multiple problems being managed incrementally and together. Sometimes juggling medications symptoms and blood results. Managing ‘multi morbidity and frailty’ is made out to be a single task and (as if it) can be managed in one consultation.” (GP, survey).

Respondents varied in their **overall views of the multimorbidity and frailty topic indicators** (as opposed to the topic as a whole) as measures of the quality of care for patients, with 3 practices (3/18, 17%) stating that the current indicators were satisfactory and more could be overwhelming, and another adding that they were useful prompts.

Item 5e(ii)

Many participants were supportive of the indicators being **financially incentivised** (88%, 28/32), but there were mixed opinions in terms of the indicators being suitable for quality improvement (without incentivisation). Only 41% (13 participants) were in favour of this, with 10 people not supportive and the remainder being unsure.

Almost 60% (19/32) of survey respondents stated that there were **existing schemes** in their local area with the majority of those who had a scheme (16/19) declaring that the pilot had had a positive impact and the remaining respondents stating no negative impact. Existing schemes were in place at both CCG and practice level, mostly in relation to frailty; however in the interviews 5 practices specifically described work relating to multimorbidity. This included a focus on patients on multiple medications, and 'one stop shops' or single annual reviews for people with multiple chronic conditions, with 89% of practices interviewed referring to optimisation of care using fewer, longer appointments.

"We are already using YOC (Year of Care) system for multimorbidity and this has helped the patient look at their condition collectively rather than separately". (Practice senior manager, survey)

One practice referred to their 'coordinated care list', containing patients with frailty, dementia, those with palliative care needs and patients of any age classed as vulnerable (clinically or socially), and another practice described a long-established programme in their local area.

".... we've got a CCG wide scheme ... It's called PACT, so it's 'Planning All Care Together'. That is all about morbidity and frailty. We identify patients using a risk tool, which is what was used nationally with the unplanned admissions before. But PACT has been going in Wandsworth for I think about eight years now.... so it's preceded the national changes. So we identify patients with multimorbidities but also other indications which include hospital admissions or the number of medications That data is from hospitals as well as primary care. So that identifies a group of patients and we have, in Wandsworth, an allocation per practice as to how many should be on that list. We review that list every year. We included, in that list, anyone that was in the severe frailty area....So we do a lot of what was in your quality indicator but with different codes and with a template that Wandsworth (CCG) created which we can't edit either". (GP, interview)

Another practice did express some concern at the potential for the provision of a nationally generated list and the potential overlap with an existing CCG scheme for multimorbidity.

Item 5e(ii)

“Yes, if it’s not duplicating all the similar things that are already being done on this level. There have been a lot of thoughts, a lot of tools that we can use to search the most vulnerable patients, the most costly patients, etc. And this just seems to be another one on top of that. Do we drop one that we’ve been doing up to now, do we use this? What happens if we have a conflict between the two systems? Which is the most important measure, is it high frailty or is it other scores, are they the most important?” (GP, interview)

Indicator 1 Multimorbidity register

Acceptability

Whilst the majority (75%, 24) of survey respondents stated that the multimorbidity register would make the quality of care for patients better, the feedback comments from individuals were more varied.

“So I think if there was a multimorbidity register, you may well find that you would want to know who’s on your other registers as well but I think having that information to focus on as your high end users if you like would be quite positive”. (Practice manager, interview)

“..There is a holistic aspect...There is a (system) prompt to identify patients, what their targets are, what their aims are, and trying to enable them to achieve it.... It’s not necessarily just about the medical aspects that would improve their care..”. (GP, interview)

“But what we were thinking, actually, we probably need to do both ends of that work and then we think it will start to switch from being multi-morbidity as you get older to prevention when you're younger”. (Practice manager, interview)

“Not sure whether the register itself would necessarily directly improve the care patients receive, nevertheless the fact of severe frailty / multimorbidities is worth highlighting to staff”. (GP, survey)

“Registers do not improve care by themselves. Especially with contentious thresholds like frailty. It is what can be done that makes the difference. A multi morbidity register is almost pointless as the front screen of any records would give you that information”. (GP, survey)

“I don’t think it’s going to make much difference because the patients with several morbidities, that are frail, are regulars so we see them anyway. We’ll tick the boxes that we have to tick. I can’t see much difference”. (Practice manager, interview)

Item 5e(ii)

Feasibility and reliability

Of the 18 practices interviewed on this topic, not all were able to describe the **process** they had **undertaken to identify patients who were eligible for the multimorbidity register**. Those who were able to describe the process used a variety of approaches to create the multimorbidity register. Overall, very few practices appeared to have applied the implementation guidance provided by the pilot.

There was a widespread view (from the practices able to describe the process) that the task had been 'huge', complex and time consuming, and there were concerns that the searches had generated large numbers of patients.

"Multimorbidity - large patient cohort. Time factor to complete effective reviews". (GP, survey)

"Yes morbidity was too large a criteria to manage". (Practice senior management, survey)

"Very heavy workload". (GP, survey)

Three of the 18 practices (17%) participating in the interview for this topic described generating a patient list as per the pilot implementation guidance, with one of the 3 practices describing it as a 'reasonable headache'. Aside from these 3 practices and one practice who reported that they had tried to follow a simplified version of this process, 11 practices (61%) stated that they had used existing practice searches (or in one case reinstated an archived search) to create the multimorbidity register, and at least two others had used the output files from the pilot baseline queries to try and identify the relevant patient cohort. The remaining practice had not created an electronic search but instead had just included patients opportunistically when the practice felt they were appropriate.

"It was extremely difficult to identify a multimorbidity register due to the complexity of domains included". (Practice manager, survey)

"I think out of all the indicators, this was probably the one that we struggled with, if I'm honest. It was the volume of searches that were on there and just making sure we were trying to identify the correct patients. It was quite frustrating...". (Practice manager, interview)

"Difficult to remember to use the templates provided". (GP, survey)

"I mean obviously looking at the handbook and what was included in there, it's fine, but in terms of actually breaking down those registers on the system through the search that was on the system or what was designed by yourselves, it was actually quite tough to validate to make sure that those numbers were accurate and that we were happy with those so we just went off it rather than validating it as such". (Practice senior manager, interview)

Item 5e(ii)

“The one problem is that the last time we were mandated to create one of these (admission avoidance) registers....we spent more time managing the list than the actual patients themselves. So they kind of became secondary; the list was more important than the patient at that point”. (GP, interview)

Overall, it was difficult to ascertain from the practices interviewed what had been done differently with regard to a multimorbidity register as a result of the pilot, compared to what practices had been doing beforehand.

“Because we’ve got this list of people that we review regularly and keep our eye on and manage in that way and because we’ve already got that case management structure in place, I utilised that to be honest. Most of those patients we’ll meet with a multimorbidity definition that you had anyway. So I was thinking, ‘well let’s just carry on with what we’re currently doing and our current ways of working to identify those patients’”. (Practice manager, interview)

“I think once a year we run the... it was a risk tool.... which draws all that data and then we get a list of patients that we review. Some of those will go on to the list and some of them won’t because we’ll look at them and say, ‘no, they’re someone that needs more time’, and ‘they’re completely fine’. So that’s one way. Then any clinician, if they identify a patient that needs more input, they would also get put onto the list as well”. (GP, interview)

A number of practices raised concerns about potential **variations in the quality of clinical coding** and lack of consistency across the various diseases and conditions contained in the multimorbidity register definition. Ways to mitigate this were suggested, such as a validation exercise to ensure all patients are captured, potentially by trying to set an estimated practice prevalence for multimorbidity for each practice to compare to, or by sending out a national search to all practices containing the codes to be included in the register.

Fourteen of the practices interviewed (78%) agreed that a **search built into the clinical system** to generate a multimorbidity patient list to enable the practice to do the validation stage (in a similar way to the electronic frailty index indicates potential patients with frailty) would be very helpful, but that substantial time would still be required to go through this list to create the register. One practice suggested that it would be useful to be able to exclude patients if applicable.

Item 5e(ii)

“...if we're identifying people or if people are being identified through various internal searches, it would be important for us to have the ability to exclude people who were felt this wasn't appropriate for, much like in the QOF measurements, you can exempt some patients from. I think it would be very useful, rather than looking at a list and having it come up every time where there's ten people that you've decided not to do something about but they keep on coming up and you're then almost like getting prompts to do things”. (GP, interview)

Seven practices (39%) did acknowledge the ability to **add patients manually to the multimorbidity register** who were not identified directly by the definition (but who in their judgement would ‘benefit from a tailored approach to care’), and gave examples of patients with specific conditions such as cystic fibrosis or degenerative conditions, or those who were under 65 years old but where their condition had caused them to be frail.

“I can think of one or two patients where they've got perhaps one quite significant condition that's made them very frail so they wouldn't hit the multimorbidity and they wouldn't hit the 65 and over for the frailty. But actually the need is still the same”. (Practice manager, interview)

The general view from practices was that a **standard clinical code to identify (flag) people on the multimorbidity register** would be useful.

“Could do with a multimorbidity code as this is very different from frailty”. (GP, survey).

“I think obviously usually with the national QOF we would get our group of patients if you like usually identified for us. Flags on the system are always a help. If it's a system wide approach, it's helpful for sharing how people are working, making sure we've got a standardised approach. I think one of the main things with this type of work..... is the work that goes on behind. The system identifies a patient but, as we've talked about with this group of patients, it's all about making sure it's not just a computer saying it's you. It's the clinical side of it of being able to go through those patients and make sure that the flag is on the right patients and it's not just they haven't had a random read code somewhere that's pulled them through...?” (Practice manager, interview)

Suggested amendments to indicator definition (including wording)

There were varied views with regard to the **list of conditions included within the multimorbidity register definition**: 6/18 (33%) practices said they would accept this list, with a further 5 practices recommending that the list needed refinement, either by

Item 5e(ii)

reducing the total number of conditions within the register definition or by increasing the count of conditions (clusters) criteria from four or more, in order to reduce the number of eligible patients to a manageable number. Two practices stated that the condition list was just too complex and the remaining practices (5) did not comment.

"...Where someone has actually identified something then we're probably just going to run with that rather than try to reinvent the wheel". (GP, interview)

In terms of conditions to remove from the register definition, diverticular disease and patients with treated constipation were suggested by three practices, with another practice proposing that any conditions with low prevalence should be removed.

"It's thinking about the conditions that maybe are not necessarily impacting on people as much as others and whether we can refine the list and that might bring down the total number of people with a theoretical term of multimorbidity down and make it a more sensible number to deal with". (GP, interview)

"..It's not the number of conditions often that determines how much input patients need but just we may as well have patients with 3 comorbidities but need much more support than others with 6 comorbidities because they're managed well and they just don't need as much support.... it's an assessment about how well they're controlled". (Practice senior manager, interview).

Respondents varied in their views about the **age range** to include in the multimorbidity register definition (which was defined in the pilot as those aged 18 years and over), with 6/18 practices suggesting all patients should be eligible, 1 practice was in agreement with the pilot definition and 1 practice proposed that 18 years old was too young and the focus should be those aged 40 years and over. The remaining 10 practices did not comment.

"...I don't see there needs to be a lower age limit because if you meet the criteria, you meet the criteria. But I would also say that applies to frailty as well..." (Practice manager, interview)

Indicator 2 Frailty register

Acceptability

Two-thirds of survey respondents (66%, 21) thought that the frailty register could make the quality of care for patients better; however a further 10 respondents (31%) were unsure.

“Assessing frailty gave a timely prompt for an over 75 check and medication review”. (GP, survey)

Feasibility and reliability

Concerns were raised by respondents about the **process of producing the register**.

“When we ran the frailty searches we were coming up with far too many people... there were two people that were actually working still”. (GP and Practice Manager, interview)

“The Read codes used were challenging and how it fits alongside both community and practice based frailty services”. (GP, survey)

“Searches showed larger number of "frail" than expected”. (GP, survey)

Comments and concerns were raised about what practices do if the level of frailty for a patient improves and they ‘come off the list’, and the accuracy of the level of frailty calculated for some patients, some of which was linked to clinical coding issues due to patients transferring from a practice with a different clinical system.

“...Not everyone understands the concept of frailty, how you score frailty...we don't know what frailty is enough in the team. We need to work harder on that”. (GP, interview)

It was also not clear from some practice comments whether they had based frailty severity assessments solely on the results of a frailty risk stratification tool without **applying clinical judgement** to confirm the assessment.

“Our (frailty) calculator sits there and it gives me the territories, but then it doesn't actually just label them for frailty....But you know if you sit and ask them (the patient), they're not that frail. You could then downgrade them a level. Or if they were sicker than they actually appeared, you could then make them more severe. You have to go through (the coding) and find out what is going on to generate the severity level”. (GP, interview)

Item 5e(ii)

One practice suggested that there should be a focus on patients with moderate frailty with a score closer to the severe end of the scale, and to prioritise those where the severity score has changed.

“...Sometimes you look at the people who are being put on the moderate and they could go on the severe.... Because I know them”. (GP, interview)

“I think it’s identifying them (moderate frailty) that’s the issue ...and coming up with the register...coming up with an accurate register would be my main issue to get sorted before we can move on with it”. (Practice manager, interview)

“...Trying to identify people with the appropriate level of frailty from some of the EMIS codes was pretty useless at best”. (GP, interview)

Suggested amendments to indicator definition (including wording)

Of the 18 practices interviewed on this topic, 9 (50%) agreed that both moderate and severely frail patients should be included in the register, with one of these suggesting that mild frailty could also be included. One practice was unsure and another stated that they agreed with the definition in principle but not in practice due to the potential size of the register. Six practices (33%) proposed that moderate frailty was not included, reasons given for this were the potentially large increase in the register size and impact on practice time, including administration time to identify the patients and the additional appointments required for patients (unless there was a significant uplift in funding).

Two practices suggested that the register definitions were further refined to focus on the people that are going to most benefit, and potentially to exclude those at the end stage of life. A preventative approach was acknowledged, in order to care for the patient before they become ill.

In the interviews, when asked their views regarding a **combined multimorbidity and frailty register**, rather than the two separate registers piloted, practices varied in their opinion. Six practices (33%) preferred two separate registers, a further 7 (39%) practices wanted a combined multimorbidity and frailty register and 3 practices raised concerns about the potential size of any combined register due to patient numbers.

Item 5e(ii)

One practice did not have a strong opinion and the remaining practice did not comment.

Suggested benefits for having a single multimorbidity and frailty register included practices being able to manage the patients together as one list, which helped with a multidisciplinary or holistic approach to care and with the patient/GP relationship; one register was considered by those in favour to be a more efficient use of resources, and that this would prioritise those with most need.

“I think a combined one (register) is probably the most used.... they can have multiple diseases yet be fine, but then when you start adding age...adding they have to use aids to walk, well, then all of a sudden they are far sicker...”. (GP, interview)

“...If a frailty assessment is tagged on to the multimorbidity, they will come to see a nurse practitioner who would do a full frailty assessment parallel to the multimorbidity review and have a more comprehensive assessment....that would mean that you’ve looked at all of it in a nutshell at least on an annual basis and made sure that the person is okay...”. (GP, interview)

The rationale for supporting two separate registers included suggestions that the two patient groups were distinct and viewed differently from a clinical perspective.

“I think it’s better being separate (registers) because the two reviews have got different elements to it... it allows the frailty review to have extra time allocated....so that we can do a proper falls assessment and then various referrals that come about after that, whereas the multimorbidity review is more of a pure medication related review”. (GP, interview)

“That’s quite a big question because it’s how frailty links to multimorbidity.... I’ve got quite a lot of patients who are 90+ who are cycling, fit and active, but they’ve had diabetes, they’ve got ischaemic heart disease, chronic kidney disease so that’s the multimorbidity. Actually they’re not frail....The two aren’t always linked together ...but certainly for my practice population, I’m not sure the two will go hand in hand quite clearly”. (GP, interview)

A number of practices raised concerns that if a combined multimorbidity register was created, they may still wish to view patient care at individual condition level, and that when treating a patient for one condition it did prompt them to look at the patient as a whole anyway.

“If (registers were combined) we don’t want to lose some of the long term conditions in our earlier patients because those are the patients who tend to develop into our frail patients and those with multimorbidity, so we need a way to keep these even if we keep the registers together..”. (Practice manager, interview)

Indicator 3 Structured medication review

Acceptability

The majority of survey respondents (81%, 26) thought that the structured medication review indicator could make the quality of care for patients better. Of the 18 practices interviewed on this topic, 7 (39%) specifically referred to aiming to reduce the treatment burden on patients.

“Structured medication review would always have a positive impact on patient care - regardless of patient being on multimorbidity/frailty register. Taking a few more minutes when discussing medication with patients, to ensure they are aware what medication they should be taking and why they are taking it, as well as discussing any side effects, etc. will always have a positive impact on patient care and benefit patient long term. It could also save money by stopping prescribing meds which patients are not taking... (Practice senior manager, survey)

“Multimorbidity / frailty reviews - clinical pharmacist feedback that several medication changes identified by having time with (to) assess and review with patient”. (GP, survey)

Feasibility and reliability

Half of the practices interviewed (9/18, 50%) mentioned that they had support from a clinical pharmacist with regard to medicines optimisation and waste, and some practices described communication issues when patients were taken off medication.

“I reviewed some of the cases with the clinical pharmacist earlier in the week and yes, she'd stopped quite a few of the medications and also made two referrals of the patients she'd seen in the clinic that day. It's a good idea, I think it's great”. (GP, interview)

“Often you can get people off medication and they tend to feel better for it. But if they don't believe they're going to, it's quite hard to get them to comply, isn't it?” (Practice manager, interview)

“...Either the patients are too eager to get off the wrong drugs, or not eager enough to get off the right drugs. They (clinical pharmacists) tend to work it so that our older people who are on drugs that can cause falls etc., we try and get them off those”. (Practice manager, interview)

“We find it's all new territory when we withdraw medicines and it gets very complicated. And we get problems quite often with the chemists phoning up and saying 'why has that been stopped?' ...You have to have very clear clinical notes written so when you stop something, everyone knows exactly why you've stopped it”. (GP, interview)

Item 5e(ii)

Some practices stated that they already performed a thorough medication review on all patients on **repeat medications**, whereas others reported not having had time to do this.

“I think what we’re looking at with multimorbidity is mainly polypharmacy... often what we don’t have time to do is a really good detailed medication review with patients..” (GP, interview)

“As treatment with bone sparing agents have been taken out of QOF 19/20 then potentially there could be patients not being treated appropriately. Care plans need to be a national template that all use as there are so many being used for frailty”. (Practice senior management, survey)

A number of practices stated that it could be difficult to persuade patients to come in for a **review on an annual basis**, with some patients being happy to come in when they want, and highlighted the difficulty with attendances for patients with mental health problems and those who are very frail or poorly. For the latter group one practice suggested that a follow up phone call was preferable than seeing the patient face to face.

“...Some patients are so difficult to get in, you just end up exemption coding them because you can’t get them to come in. You’re actually playing with the data just to make sure you get what you need. I mean the prime example is patients with arthritis or osteoporosis who struggle in their daily lives to get around. Yet we’re putting an extra burden on them saying ‘come in and have a review’”. (Practice manager, interview)

“When working with numbers of patients on the registers there is a risk that reviews would become a tick box exercise due to time constraints and amount of work required. This would be of no value and/or benefit to any patients”. (Practice senior manager, survey).

Suggested amendments to indicator definition (including wording)

The **use of specific tools** within medication reviews was discussed in the interviews, with most practices using an internal process, either exclusively (72%, 13/18) or together with a standard tool such as STOPP START¹ or ECLIPSE² (22%, 4/18). One practice used solely STOPP START; however, in general, the practices who did not use a standard tool were aware of or familiar with these.

¹ Screening Tool of Older People’s Prescriptions and Screening Tool to Alert to Right Treatment

² Education and Cost-analysis Leading to Improved Prescribing Safety and Efficiency

Item 5e(ii)

“...With things like the STOPP START tool, it actually takes quite a long time to do that properly. It’s not something you can do as part of consultation, to do a STOPP START tool properly, depending on the number of medications somebody is taking, that can potentially take half an hour”. (Practice manager, interview)

It was also clear that practices wanted to be able to demonstrate via clinical coding that they had de-prescribed as a result of using a tool.

“..The one problem I have with it (STOPP START) is that I’ve got nowhere that I can actually code ‘I have done this’, you know, ‘I have de-prescribed’ neatly”. (GP, interview)

“At present there is no incentive to de-prescribing with QOF rewarding treatment. Even bisphosphonate holidays are very difficult to record and certainly not registered in QOF”. (GP, survey)

Other comments on **indicator wording** included support for inclusion of the term ‘consider’:

“Actually some of the ways that they’re worded is ‘consider the approach’, ‘consider if you need to’, which is very helpful because of course you might consider it or not but then it’s still another thing to think about, isn’t it?” (Practice manager, interview)

Related to the part of the indicator definition that states ‘and has taken place as a shared discussion’, an issue with the coding used in the pilot was identified during one of the telephone interview/focus groups: while the codes provided in the business rules specifically related to medication reviews that have taken place ‘with the patient’, some practices reported that they had reverted to their usual codes for medication reviews:

“.....which is XAF8d and it’s programmed into SystmOne. So when you do a review of repeats, which is where you’d see all these multiple medications all our clinicians automatically click on that”. (Practice manager, interview)

However, there were practices that had found the more precise coding within the indicator definition (in general) useful.

“...This pilot has shown that you can be more specific with your coding in terms of the way you’re doing a medication review”. (GP, interview)

Indicator 4 Falls prevention

Acceptability

Seventy-two percent of survey respondents (23/32) thought that the falls prevention indicator could make the quality of care for patients better, with a further 8 practices being unsure.

However, one respondent mentioned a potential drawback of asking the falls questions to everyone who is classed as moderate or severely frail, as *“this means you have a very flippant reply!”* (GP, interview)

Feasibility and reliability

Of the 18 practices interviewed, 10 practices (56%) commented on their experience of falls prevention in the pilot period. The comments included describing the benefits and problems of including the moderately frail patients in terms of falls risk, and the danger of viewing this indicator (and others) in isolation from the patient’s social circumstances.

“The moderate ones... the problem I have is....you ask these questions and then it almost diverts you away from the actual problem that they’re there for. The severely frail, the falls are useful because then you pick up a lot of these tiny little falls that they’ve been doing. The moderate ones, when they fall it’s normally a bigger event ...you ask the moderate frailty (about falls) and they’ll say ‘No’ because either they’ve forgotten it because it was inconsequential when they’ve fallen over. Or they’ve typically done it when ... they’re up and down the garden and they’ve tripped doing it. Which they consider themselves as, you know, over-activity so they just take it in their stride. And then it deviates you away from the main reason they’re in...” (GP, interview)

“Quite a few (moderate frailty patients) have been identified (by the pilot) as at risk of falls and needing an onward referral – which we wouldn’t have picked up in any other way”. (GP, interview)

“We’ve ticked every box, they’ve had us all screen. They’ve had their meds review but they’re still falling over and they’re still going into hospital. What we’ve worked out is with a lot of them it’s because the care isn’t in place as it could be and they’re socially isolated”. (GP, interview)

Item 5e(ii)

Suggested amendments to indication definition (including wording)

There were no comments provided suggesting any amendments are required to the indicator definition.

Additional areas explored by the pilot (coding of polypharmacy, vulnerable patients and residential status)

The pilot was also used to explore the ability of practices to improve polypharmacy coding, to identify patient groups such as complex or vulnerable patients, or to report their residential status, and the pilot guidance documentation provided to practices contained codes that could be used to identify specific patient groups. There appeared to be a widespread view that the use of these codes was useful, both in principle and in practice. Eleven practices (11/18, 61%) reported that they had used codes to identify the residential status of patients (such as housebound patients or care home type) and six practices (6/18, 33%) mentioned that the codes for polypharmacy would be useful, but in general these had not been used within the pilot.

“I think the answer is anything that makes life easier in terms of identifying patients, that would be helpful”. (GP, interview)

“...I think if you’ve got something to code people with so you’re clear about who that group is, it’s never going to be a disadvantage”. (GP, interview)

“I think that probably will be useful, the polypharmacy bit because actually it was, going forward, still thinking about.... The push now I think is about de-prescribing. I think that would be helpful actually”. (GP, interview)

From the responses about the overall value of the frailty and multimorbidity topic in the interview/focus groups, six practices (6/18, 33%) proposed that **more information on quality of care** needed to be collected, including creation of a healthcare plan, shared care record and Do Not Attempt Resuscitation status (for frail patients), in addition to social factors such as fuel poverty, housing, living alone or mobility issues.

One practice raised concerns about data quality and ensuring the accuracy of codes currently used to define a patient group or type.

Assessment of implementation:

Assessment of piloting achievement

The baseline extraction covers a 12 month time period and the final extraction a 4 month time period.

Indicator 1 Multimorbidity register

As a register there is no achievement data to report. Prevalence of multimorbidity (as defined by the presence of four or more condition clusters) across the cohort was 4.53% at the baseline extraction and 5.24% at the final extraction.

Based on the final extraction data, the variation in the prevalence of multimorbidity at practice level ranged from 1.6% to 9.4%, (median 5.4%).

Indicator 2 Frailty register

As a register there is no achievement data to report. The proportion of patients with moderate or severe frailty across the cohort was 2.36% at the baseline extraction and 2.61% at the final extraction.

Based on the final extraction data, the variation in the proportion of patients with moderate or severe frailty at practice level ranged from 0.03% to 8.67%, (median 2.51%).

Indicator 3 Structured medication review (patients with multimorbidity and/or moderate or severe frailty)

% patients receiving a medication review	Baseline	Final
Practices	26	26
Practice population	321,651	321,815
Generated (MM or F)	18,232	20,818
Exception: declined	3	3
Exception: new registration	8,087	10,610
Exceptions as a percentage	55.64%	49.03%
Denominator	10,142	10,205
Numerator	2,984	1,207
Percentage	29.42%	11.83%

Item 5e(ii)

Indicator 4 Falls prevention (patients with moderate or severe frailty)

% patients asked about falls	Baseline	Final
Practices	26	26
Practice population	321,651	321,815
Generated (MM or mod/severe frailty)	7,595	8,446
Excluded: previous referral	239	428
Exception: declined	7	0
Exception: new registration	145	142
Exceptions as a percentage	2.07%	1.77%
Denominator	7,201	7,876
Numerator	1,636	615
Percentage	22.72%	7.81%

% patients at risk of a fall who have been provided with advice and guidance	Baseline	Final
Practices	26	26
Practice population	321,651	321,815
Generated (MM or mod/severe frailty)	7,595	8,446
Generated (MM or mod/severe frailty + falls discussion + at risk)	1,282	922
Excluded: previous referral	Nil *	Nil *
Exception: declined	Nil *	Nil *
Exception: new registration	Nil *	Nil *
Denominator	1,282	922
Numerator	5	54
Percentage	0.39%	5.86%

**Rejection rules failed*

Practices' views on implementation issues (including impact)

Impact (medication review and falls prevention indicators)

One respondent raised a question about the impact of de-prescribing as a result of medication review:

"...For quality of care it's very difficult ...so we try and audit some of the work we've done (based on the latest guidance) to see whether it's having an impact on the patient. Because actually if we spend a couple of hours taking them off six medications but it makes no difference to their health, there is a question whether we could have done something different in those two hours that would have made a difference to their health?" (Practice manager, interview)

Comments on the falls prevention indicator included describing the benefits of including the moderately frail patients in terms of falls risk:

"Our care coordinator looks after the frailty register and has signposted patients to third party organisations to make a massive impact on theirs and their family day to day function". (Practice senior management, survey)

Training requirements

When asked if they thought it would be advisable to undertake additional training, if the topic of multimorbidity and frailty was introduced nationally, 72% of the survey respondents (23/32) said yes. A number suggested training which included the guidelines and relevant assessment tools, and greater awareness raising of the topic.

"The reason and idea of the frailty and multi morbidity needs to be taught otherwise it simply won't be done to any great depth and will be done as a tick box rather than to benefit patient care". (GP, survey)

The feedback comments from interviews endorsed this view, with participants suggesting education sessions relating to the background and aims of this work and the topic in general would be helpful, in addition to guidance from both a clinical and quality of life perspective and provision of information about the services available in the local area for patients with multimorbidity and frailty.

"I think what almost certainly happens on a practice basis is that as and when the toolkit gets rolled out then we would certainly incorporate that into a practice education session so everybody had a view in terms of what was happening". (GP, interview)

Other overall views on implementation of the indicators

One practice was concerned that the frailty indicators required the **input of different specialists**, including the clinical pharmacist for medication reviews and practice nurse for falls assessments, which they found problematic when trying to record this on one template.

Other comments from respondents covered the potential extension of reviews into other areas and the **need for a holistic approach**.

“Yes, I think that (medication reviews and falls) is the key. The only other sorts of things are perhaps more social factors for that patient to think about, not just the falls element but social input and that side of things from a care perspective, not just occupational therapy and physiotherapy but do they need some input from Age Concern? Are there cognitive problems? You could extend that frailty review quite significantly, but it’s the time element...” (GP, interview)

“So I think in our PACT template we’ve always had this winter warmth assessment. There are a few other things that are included in it which... so we’ve got, on our template, it also gives all the links to the self-management service, the alcohol service, healthy living, falls and bone health and then Social Services, Age UK, Care for Me. So I think you can put things on a template but I think it’s hard to get everyone aware of the full remit of what you’re trying to achieve, as in I think... that will vary locally”. (GP, interview)

“...Scoring people from a more social point of view rather than thinking always clinically”. (GP, interview)

“...it’s not necessarily just about the medical aspects that would improve their care. So it’s about getting them to go out and do other things as well”. (GP, interview)

“And I’m writing plans for these people because I know plans are wonderful, individual, personalised care plans. They’re not something you can write at the start because they go off to the social prescriber and she then sits down and says, “Oh well, we’ve got this, this and this.” Which is different to what I would have thought. And so she gets round in a different way. And then there’s other support groups. It’s just sort of not, you can’t do it at Day One, that’s the thing I’m trying to say. It’s often a work in progress, working with lots of other things and it slowly comes together”. (GP, interview)

Changes in practice organisation

Practices noted that changes may be required to their **appointment structure** in order to accommodate extended appointments for patients with multimorbidity and frailty. In the long term they felt that this could reduce the overall contact time an individual patient has with the practice, but in the interim this could result in additional work.

One practice stated that for the pilot they had been doing the patient reviews separately to a normal consultation, that none of the work was opportunistic but rather that they had called patients in for specific reviews. A GP from another practice described in the interview how they had tried different appointment types and lengths during the pilot for patients with different requirements, but that they didn't have a "definite feel for the right way", reporting that it had been difficult "to find a way that achieves everything that's necessary for this as well as what we're all otherwise doing".

Concerns were raised by some practices in that if an appointment was long, there could be too much information for the patient to take in; but alternatively, a series of multiple appointments could result in the patient not attending all of these.

"We do try and combine some of the clinics together for multi-morbidity but the only thing we find is sometimes it's too much to take on for the patient, all in one go. So, they don't get the benefit of the review quite so much because they're missing bits and the concentration... You know, doing a 45-minute review they're not going to retain all that information. And although we give them printouts and handouts of things we've discussed or if it's a care plan or something, our nurses feel sometimes it's just a bit too much all at once". (Practice manager, interview)

There was a **variety of clinical staff types** mentioned by practices that were used in the appointments, predominantly nurse practitioners, GPs and clinical pharmacists. Complex care teams and multidisciplinary teams were also used by some practices. Four practices stated that they were flexible on staff type depending on the needs of the patient. One practice used the clinical pharmacist team for multimorbidity reviews but used a GP for frailty reviews with the help of a clinical pharmacist.

"I think the patients definitely value it (extended appointment). I think the doctors actually get to know the patient better and so they can then handle anything that comes up over the next year better". (GP, interview)

".....to undertake an effective review and appropriate intervention needs a long appointment time with a GP or clinical pharmacist which needs to be adequately funded for the large patient cohort identified" (GP, survey)

Item 5e(ii)

One practice stated that their practice team currently consisted of a number of specialists in certain conditions or areas, and that this may be an issue with offering one extended multimorbidity and frailty appointment as more than one staff member would need to be present, or there could be a set of staggered appointments to cover the patient's needs. They acknowledged that their appointment system and approach to staff training may need to be reviewed. In response to this, another practice stated that 2 years ago they had upskilled their diabetes nurse to also manage respiratory conditions, meaning that where appropriate, patients could have a longer appointment covering these disease areas.

"The nurses are quite open to up-skilling as long as they felt supported by the GPs. We actually found it was better patient experience and actually it made our nurses much more available because what we were finding before is they were coming in for 20 minutes for asthma, 20 minutes for diabetes and say 20 to 30 minutes for COPD. They were able to do all three in a 40 minute appointment so it actually helped us reduce our appointments by doing a combined appointment for those three indicators". (GP, interview)

"We employed a home care nurse and two HCAs to visit our frailty patients. Depending on your list size the workload is substantial". (Practice senior manager, survey)

Three practices (3/18, 17%) raised the issue of **patient access to the practice** regarding a falls review; the first stating that it was easier to bring moderately frail patients into the surgery as their gait was better and they tend not to be wheelchair or bed-bound. The other two practices had concerns about patients who were housebound, in that a review was difficult for practices to do as they needed extra time to visit the patient.

"...GPs will probably do some of the (frailty) reviews actually without the patient necessarily being there, because as we said with housebound patients, sometimes it's easier to just do it without them being there". (Practice manager, interview)

Workload, resource utilisation and costs

As described in the 'feasibility' sections for each of the registers (p12 and 16), workload implications (administrative and clinical) were identified due to the high numbers of patients reported on the registers. An illustrative comment relating to both registers on this point was as follows:

"We liked the idea behind focusing on patients with severe frailty and multimorbidities but number of patients on the registers were simply 'not workable'. Once amount of patients is lowered to perhaps 1% of practice list size that would allow us to review and stratify those

Item 5e(ii)

patients as well as offer full clinical/medication/multidisciplinary review to those most at risk of being admitted to hospital, etc. Unfortunately it wasn't feasible to work through the lists and all indicator requirements in their current form". (Practice senior manager, survey)

However, it is estimated from the data extractions that the multimorbidity and frailty population constitutes approximately 6.5% of the practice register.

With regard to additional **clinical workload** during the pilot, almost 44% (14/32) survey respondents considered there to be no extra or acceptable extra clinical workload during the pilot. Nine respondents were unsure and the remaining 9 stated that the clinical workload was heavy (16%, 5/32) or prohibitive (13%, 4/32). For this latter group of 9 it was reported that both GP (9/9) and non-GP (2/9) clinical roles were affected.

Almost 69% (22/32 survey respondents) considered there to be no extra or acceptable extra **administrative workload** during the pilot. Four respondents were unsure and the remaining six stated that the administrative workload was heavy (16%, 5/32) or prohibitive (3%, 1/32).

Within the interviews, a number of practices raised concerns about practice workload in relation to set up and preparation, if these indicators were introduced into primary care contracts. The main concerns related to identifying patients or refining patient lists for registers (as above), register sizes, creation of individual care plans and the follow up work.

"There's a certain amount of complexity in maintaining these registers and putting them together and it's having an administrative load that can manage that because I don't think we have permission to take time to do that. I think that side hasn't quite been thought through perhaps on some of these initiatives". (Practice manager, interview)

"...one of the difficulties here, whereas a lot of the things we're talking about are admirable and aspirational, I'm just not sure we've got the time". (GP, interview)

There appeared to be a general view that the **appointment length** for patients with multimorbidity and frailty needed to be longer than a standard 10 minute appointment, with a number of practices suggesting that 30 to 40 minutes was required; however, this depended on the healthcare staff type. Two practices (2/18) said that they could extend the appointment to suit the patient, such as booking double appointments with a GP. One practice suggested that these appointments could take up to one hour.

Item 5e(ii)

Concerns were raised about the impact of including both moderate and severely frail patients on the frailty register, in terms of **onward referral to falls clinics** or secondary care geriatricians. Comments included the use of local support groups for severely frail patient groups.

"...Our frailty clinic provided by our CCG is in the region of about an hour's travel away. And we're fairly rural so the roads aren't good, and of course, our frail people can't travel. And so the next stage on is always the lacking stage where we just don't get the services provided for them in the location where they're needed. So we were using our social prescriber, who was putting them in touch with local support groups and things" (GP, interview)

Ten of the practices interviewed (10/18, 56%) expressed concerns about the **impact on the wider healthcare system** and services in terms of capacity and the ability to cope if there was an increase in patient referrals for further care, in particular relating to falls. Two practices mentioned that local community services had developed over time to try to support the existing workload, but that increasing demand further would certainly have a negative impact. One practice questioned whether a different approach was available regarding scoring those who may be more likely to benefit from the formal falls review to try and reduce patient referrals.

"As discussed in the telephone interview, there is general concern about falls prevention referrals and how the clinics would manage this influx". (GP, survey).

"I'm just worried how overwhelmed the system is going to be as a result, how much time that's going to take, the funding to be able to do it". (GP, interview)

"..Unfortunately, our falls service actually collapsed when we started referring all our falls patients that we felt would benefit. It's only now, several months later, we're just able to start seeing patients again. So that was a problem we had". (Practice manager, interview)

Barriers to implementation

Due to the relative complexity of the **multimorbidity register definition**, it is likely that there would be a substantial impact in terms of time for practices to set up searches to identify these patients, and a high risk that there would be variation in the interpretation of the guidance. Practices could be supported by the clinical system suppliers creating the searches automatically to provide a list of 'at risk' patients for practices to validate.

Item 5e(ii)

Linked to the above, it is also possible that there is substantial **clinical coding variation** between practices, particularly with regard to diseases or conditions which are currently not part of a national incentive scheme or contract, and therefore where no standard technical guidance document for reference exists. As a consequence a data validation exercise to improve coding accuracy and reduce data quality issues may be required in conjunction with the above.

There was a general view from practices that the **lack of time** in general practice could be a barrier to implementing these indicators.

A specific barrier was identified in the pilot in relation to **coding of medication reviews**, with some practices reporting that they had reverted to their usual codes for medication reviews, rather than using the codes provided in the Business Rules to code medication reviews that have taken place 'with the patient' (intended to reflect the greater likelihood of a shared discussion as defined within the indicator).

One practice suggested that the topic wasn't introduced nationally at the same time as SNOMED, and requested instead that this was 'sensibly timetabled'.

Following comments from participants that the registers would be 'too difficult to implement for the first year', they suggested that the topic of multimorbidity and frailty could be identified as an **area of care requiring improvement** and incorporated into the QOF Quality Improvement domain, as part of QOF and introduced in the five-year framework for GP practices from 2019/20³. There were also suggestions from practices of a staged approach to introducing the topic into contracts, with a validation phase in year one.

"I think you could run it in but it would be one of those codes where everyone does it, they'll bodge it for the entire year. And it would be a very difficult thing to get people to do properly without prepping, without almost education going in first and foremost, of trying to encourage people to do it..... But then, to sit there and say, "Right, we're going to mark you on whether you're doing all of this for frailty," I think people will just cheat, to be quite honest. The speed that things need to go in, anyway..... You can start by bringing it in and then almost know that the codes are coming, this is coming next year. So you start your register, you create points for getting a register. And then it means that you're actually at the next stage, where you have

³ <https://www.england.nhs.uk/wp-content/uploads/2019/01/gp-contract-2019.pdf>

Item 5e(ii)

action based on that register. I mean, you can do that as it bleeds in, because people then start to look at it and start to, like you say, get the codes ready". (GP, interview)

Assessment of exception reporting (or future Personalised Care Adjustment)

Given the short time period available for the pilot, we are unable to comment upon likely levels of exception reporting.

The committee may wish to consider the comment in the section above on 'changes in practice organisation', where some practices had concerns about patients who were housebound, raising a query about whether an indicator requiring face to face reviews could lead to exception reporting for this group.

Assessment of potential unintended consequences

Seven of the survey respondents (7/32, 22%) stated that there were negative things that they didn't expect to experience, with six providing further detail. However, most of the specific issues identified relate to ones already discussed, particularly workload. One unanticipated issue was the potential impact of long consultations on patients.

"Patients being able to hold and understand information given to them during long consultations". (Practice manager, survey)

Assessment of overlap with and/or impact on existing QOF indicators

At least 50% of the conditions and diseases contained within the multimorbidity definition are already included in QOF. There is potential overlap with points awarded to practices for undertaking reviews for patients in individual disease areas.

Suggested amendments to indicator wording (summary)

No amendment to indicator wording is suggested at this time.

Appendix A: Practice recruitment

A sample of 30 GP practices from across England was recruited by the NCCID to participate in the indicator pilot for 2018/19. Practices were to be representative of England in terms of the range of practice list sizes⁴ and level of deprivation⁵. An additional aim was that there was practice coverage with regard to three of the four principal clinical system suppliers.

There were 4 of the 30 practices who subsequently withdrew from the pilot, one just prior to the commencement of the pilot, two practices mid-pilot and one close to the end. One of the remaining practices underwent a merger just prior to the start of the pilot which resulted in a change in the stratum for this practice due to the practice population more than doubling in size.

Final practice numbers in each stratum of practice list size and level of deprivation participating in the pilot are shown in the table below. When compared to the distribution of practices initially planned to target (in order to be fully representative of practices in England on these dimensions), there is over-recruitment in one stratum (large list size, least deprived) and under (no) recruitment in one stratum (small list size, least deprived); however, in this case, there is a practice categorised with medium list size and low deprivation where the list size (5,518 registered patients) is close to the lower end of the range.

Broadly speaking, based on this and other background data available to characterise the pilot practices, they appear to be fairly representative of GP practices in England.

Table: Participating pilot practice numbers by stratum

List size ⁴	IMD score ⁵			Total
	Least	Medium	Most	
Large	8	2	4	14
Medium	3	4	2	9
Small	0	2	1	3
Total	11	8	7	26

⁴ 2016/17 registered population taken from NHS Digital QOF 2016/17 <https://digital.nhs.uk/>

⁵ Index of Multiple Deprivation (IMD 2015) Public Health England <https://fingertips.phe.org.uk>

Appendix B: Indicator development

Following the August 2018 NICE Indicator Advisory Committee the NCCID was asked to pilot the following potential new indicators relating to multimorbidity and frailty, which had been developed based on:

Relevant NICE guidance,

The findings from a literature review relating to population differences and the overlap in people who are frail and/or have multimorbidity,

Data from QOF registers and regional studies (Healthy Ageing Collaborative, Yorkshire and Humber AHSN and GP Federation within North Durham CCG),

Discussions with frailty experts and IAC members, including consideration of separate register requirements, the meaning of a tailored approach to care, and recommendations on conditions and impairments that could be defined as long term health conditions, and

The results of an exploration into five multimorbidity register scenarios based on individual conditions and condition clusters (where a cluster contains symptoms and conditions in similar disease systems).

.

Indicator wording as piloted

Indicator 1: Multimorbidity register

The practice can produce a register of people with multimorbidity who would benefit from a tailored approach to care. (Where, for the purposes of the pilot, patients with multimorbidity are defined as those with 4 or more Scottish Primary Care Information Resource (SPIRE) condition clusters supplemented by clinical judgement).

Indicator 2: Frailty register

The practice can produce a register of people with moderate or severe frailty, defined as those patients who have been diagnosed using an appropriate tool and applying clinical judgement (in accordance with the GP core contract data collection).

Indicator 3: Structured medication review

The percentage of patients with moderate or severe frailty and/or multimorbidity who have received a medication review in the last 12 months which is structured, has considered the use of a recognised tool and has taken place as a shared discussion.

Indicator 4: Falls prevention

The percentage of patients (aged 65 years and over) with moderate or severe frailty who have been asked:

- Whether they have had a fall, about the total number of falls and about the type of falls, in the preceding 12 months.
- And, if at risk, have been provided with advice and guidance with regard to falls prevention (in the preceding 12 months).

Appendix C: Acceptability and implementation recommendations

Acceptability recommendations

In order to provide recommendation to the Indicator Advisory Committee, the degree of acceptability of the indicators to practices is assessed and reported in the 'Summary of Indicators' section as follows:

- a) A summary of the percentage (of respondents to the survey) responding to the survey questions which relate to whether indicators within the topic should be financially incentivised and their impact on the quality of care for patients;
- b) Relevant indicator- specific comments reported descriptively.

Implementation recommendations

Implementation recommendations in the 'Summary of Indicators' section are based on a judgement of the findings reported by pilot practices relating to workload, training, set up and preparation, taken from surveys and interviews/focus groups. A narrative overview of the ease of implementation from these findings, forms the basis of the implementation category used for the recommendations in the topic reports.

The implementation categories are:

- No problems (with implementation)
- Minor problems (resolvable)
- Major problems (potentially resolvable)
- Major problems (not resolvable)

Appendix D: Condition clusters

Category	Condition
Cancer	Cancer
Chronic pain	Painful condition ⁶
Circulatory conditions	Coronary heart disease Atrial fibrillation or atrial flutter Heart failure Hypertension Stroke or TIA Peripheral vascular disease
Diabetes	Diabetes
Digestive system conditions	Currently treated constipation ⁷ Diverticular disease of intestine Inflammatory bowel disease Chronic liver disease
Learning disability	Learning disability
Mental health	Anorexia or Bulimia Anxiety & other neurotic, stress related and somatoform disorders Dementia (including Alzheimer's) Depression Schizophrenia and related non-organic psychosis Bipolar disorder Alcohol problems Psychoactive substance misuse
Musculoskeletal conditions	Rheumatoid arthritis Other inflammatory polyarthropathies Systemic connective tissue disorders
Neurological conditions	Currently treated epilepsy Multiple sclerosis Parkinson's (of any cause)
Renal conditions	Chronic kidney disease
Respiratory conditions	Currently treated asthma COPD Bronchiectasis

⁶ Defined by the presence of 4 or more prescription only medicine analgesic prescriptions or 4 or more specified anti-epileptics in the absence of an epilepsy Read code in last 12 months.

⁷ Four or more laxative prescriptions in the last 12 months

Item 5e(ii)