NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Case scenarios for health and social care practitioners

Implementing the NICE guideline on medicines optimisation

With suggested answers

These case scenarios for health and social care practitioners accompany the NICE guideline on medicines optimisation (published March 2015).

Implementing the NICE guideline is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guideline, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in the guideline should be interpreted in a way that would be inconsistent with compliance with those duties. These case scenarios are a tool to support the implementation of the NICE guideline. **They are not NICE guidance.**

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Introduction

NICE case scenarios

Case scenarios are an educational resource that can be used for individual or group learning. Each question should be considered by the individual or group before referring to the answers.

These 4 case scenarios have been put together to improve your knowledge of the systems and processes involved in medicines optimisation and their application in practice. They illustrate how the recommendations from the NICE guideline on medicines optimisation can be applied by individual people and organisations involved with medicines optimisation, to ensure that people obtain the best possible outcomes from their medicines.

You will need to refer to the NICE guideline while using these case scenarios, so make sure that you have access to copies (either online or as a printout).

Each case scenario includes background information and relevant recommendations from the NICE guideline, which are quoted in the text (at the end of each case scenario), with corresponding recommendation numbers.

Medicines optimisation

Medicines use can be complex. Helping people to take their medicines safely and effectively has been a longstanding challenge for health and social care practitioners. The guideline sets out what all health and social care practitioners and organisations need to do to put in place the person-centred systems and processes needed for the optimal use of medicines.

People who take or use medicines should be at the centre of decisions about their care. Shared decision-making should be based on the best available evidence and take account of the patient's individual needs, preferences and values.

When patients transfer between different care providers, such as at the time of hospital admission or discharge, there is a greater risk of poor communication and unintended changes to medicines. The guideline recommends that health

and social care practitioners share relevant information about the person and their medicines when a person transfers from one care setting to another. This should include details of the medicines the person is currently taking, information about allergies the person has and any changes to a person's prescriptions including treatments started or stopped, or dosage changes, and reasons for the change.

The safety of medicines is another important consideration when optimising medicines and the guideline recognises the importance of health professionals having an up-to-date list of all the medicines a person is taking (medicines reconciliation). This is particularly important when they go into hospital, move from one ward to another or to a different hospital, and when they are discharged from hospital.

The importance of carrying out medication reviews for some people, such as those taking multiple medicines (polypharmacy), people with chronic or long-term conditions or older people, is also addressed in the guideline. These are important in helping health and social care practitioners to reach an agreement with the person about treatment, optimising the impact of medicines, minimising the number of medicines-related problems and reducing waste.

The guideline also makes recommendations about what systems for identifying, reporting and learning from medicines-related patient safety incidents should be in place. This includes ensuring patients or their family members or carers understand how to identify and report any medicines-related patient safety incidents.

The use of structured, documented plans for people with chronic or long-term conditions to help them manage their condition using medicines, and patient decision aids in consultations involving medicines use to improve patient outcomes are also covered in the guideline.

Case scenarios for medicines optimisation

Case scenario 1: Older person admitted to hospital

Florence is an 84-year-old lady with hypertension and rheumatoid arthritis. She lives at home on her own, and has weekly visits from her daughter who lives 35 miles away. She also receives daily support from a care worker to help with activities of daily living.

She is currently prescribed:

- bendroflumethiazide 2.5 mg daily
- lisinopril 10 mg daily
- simvastatin 40 mg at night
- methotrexate 20 mg once weekly on a Wednesday
- folic acid 5 mg daily except on Wednesday
- paracetamol 1 g four times daily when needed.

On Friday evening, an on-call GP visits Florence because she has been feeling unwell with symptoms of urinary frequency, dysuria and urge incontinence for a few days. The GP diagnoses a urinary tract infection (UTI) and prescribes trimethoprim 200 mg twice daily for 3 days. On Sunday, the care worker is very concerned that Florence has deteriorated and is nauseous and confused. She calls an ambulance and Florence is admitted to hospital.

A hospital doctor changes the trimethoprim to co-amoxiclav because her UTI symptoms have not improved. After a few days Florence is feeling much better, her UTI symptoms resolve and she is discharged from hospital. The practice pharmacist checks the discharge summary and identifies a drug interaction with the trimethoprim and methotrexate.

1.1 Question

Has a medicines-related patient safety incident occurred?

1.1 Answer

Yes. A prescribing error has occurred because it was not appropriate to prescribe trimethoprim to a person receiving methotrexate because of a serious and potentially life-threatening increased risk of haematological toxicity.

1.2 Question

What went well in this scenario? How could Florence's care have been improved?

1.2 Answer

What went well?

- Florence's care worker realised that something was not right and sought medical care.
- The practice pharmacist checked the discharge summary, including medicines that had been stopped, and identified the drug interaction.
- The on-call GP prescribed an antimicrobial according to national guidelines for treating UTIs (Public Health England, 2014).

What could be improved?

- A better person-centred experience for Florence that considers:
  - Whether Florence or her carer were asked about her other conditions and current medication.
  - If she or her carer received information about potential side effects or medicines to avoid (drug interactions) with methotrexate.
  - Any additional social care and support that may be needed at home while she was unwell.

- Ensuring there was a safety net that considers:
  - Whether there was a plan for Florence to have been reviewed earlier should her condition deteriorate.
  - What information could have been provided to support Florence's daughter and her care worker, such as symptoms to look out for and when to seek urgent treatment.

- Appropriate choice of treatment that considers:
  - If the antimicrobial interacts with any of Florence's existing medicines.
  - Whether any of Florence's medicines could be stopped temporarily.
  - Whether her condition deteriorated as a result of the interacting medicines, or because her UTI was not sensitive to trimethoprim.
  - Whether a urine sample was given and a culture performed following her admission.
  - Whether the appropriate blood monitoring was carried out.
  - The duration of treatment – a 3-day course of an antimicrobial may not have been long enough because Florence is immunosuppressed.

- Better access and use of information about medicines that considers:
  - Whether the on-call GP was aware that Florence was taking methotrexate.
  - The arrangements for on-call GPs to access appropriate information.
  - If the health professionals took steps to confirm Florence's regular medicines and checked for potential interactions at the point of prescribing the antimicrobial. Sources of this information include speaking to Florence, her daughter, her care worker, or pharmacist (if available); summary care record; British National Formulary (BNF); NICE Evidence; and checking Florence's medicines at home.

- Better communication:
  - Many people were involved in Florence's care but communication could have been improved with her, her daughter and carer, and between health professionals. NICE recommends that organisations should consider a multidisciplinary team approach for people like Florence who have long-term conditions and take multiple medicines (polypharmacy) (see the NICE guideline on medicines optimisation).

- Ensuring the incident is reported:
  - The error needs to be reported (in line with local and national processes, such as the National Reporting and Learning System [NRLS]), even though Florence is no longer taking the trimethoprim.
  - The on-call GP and other individuals involved need to be contacted.

- Applying learning to raise awareness of the interaction that considers:
  - Whether the health professionals involved were aware of the interaction between methotrexate and trimethoprim. There were many opportunities for a health professional to identify the interaction.
  - If the trimethoprim changed to co-amoxiclav because the hospital doctor was aware of the interaction, or because of a lack of response to trimethoprim.
  - If the hospital doctor contacted the on-call GP to discuss the incident (if they were aware of the interaction).
  - Whether the community pharmacist dispensing the prescription for methotrexate had the opportunity to check Florence's patient medication record and take action (if Florence obtained her regular medicines from the same community pharmacy).
  - The need to raise awareness of the significance of the interaction (even with short courses or low doses) with hospital staff and across the local health economy. Trimethoprim should not be prescribed for people who are also prescribed methotrexate.

- Medicines reconciliation carried out on admission (ideally within 24 hours) by a trained and competent health professional should have identified the error.

1.3 Question

In addition to the pharmacist review of the discharge summary, how else can medicines-related patient safety incidents be identified?

1.3 Answer

NICE recommends that organisations should consider using multiple methods to identify medicines-related patient safety incidents (see the NICE guideline on medicines optimisation). The approach should be agreed locally and arrangements reviewed regularly to reflect local and national learning. Examples include:

- errors reported via an incident reporting system
- medication review
- medicines reconciliation

- pharmacist review of health records on the hospital ward or by the community pharmacist
- direct observation of an incident occurring, such as incorrect administration
- practice audits
- patient interviews or surveys
- information technology software, such as computerised alerts and the pharmacist-led information technology intervention (PINCER).

1.4 Question

How can reporting and learning from medicines-related patient safety incidents be improved? What are your experiences locally?

1.4 Answer

NICE recommends that organisations should consider exploring what barriers there are to reporting and learning from medicines-related patient safety incidents (see the NICE guideline on medicines optimisation). Any barriers identified should be addressed. The following examples may help to improve reporting and learning:

- Having robust and transparent processes in place, with regular review. For example, having clear criteria for reporting and ensuring that health and social care practitioners fully understand the process.
- Having dedicated staff responsible for medicines safety.
- Ensuring there is board-level engagement.
- Having a ‘fair blame’ organisational culture that supports learning.
- Raising awareness with patients and their family members or carers, and involving them in developing processes.
- Providing feedback to health and social care practitioners on local trends.
- Using incident reports to facilitate peer group learning.
- Providing specific education and training in areas known to cause problems, such as insulin or anticoagulant prescribing.
- Reducing the bureaucracy of reporting. For example, making completion as simple as possible with tick boxes and minimal free text.

1.5 Question

What additional support is Florence likely to need with her medicines following her discharge from hospital?

1.5 Answer

- NICE recommends that organisations should consider arranging additional support for some groups of people (including older people like Florence who are taking multiple medicines) when they have been discharged from hospital (see the NICE guideline on medicines optimisation).
- The type of support needs to be individualised for Florence, depending on her needs and preferences. This may include:
  - pharmacist discharge counselling
  - post-discharge medicines reconciliation and medication review in primary care (this was carried out by the practice pharmacist)
  - post-discharge telephone or home follow-up by her regular GP, practice nurse and/or community pharmacist
  - reviewing the type of social care and support needed, particularly in relation to Florence's medicines.

Related recommendations from NICE guideline NG5: Medicines optimisation

Recommendation 1.1.1

- Organisations should support a person-centred, 'fair blame' culture that encourages reporting and learning from medicines-related patient safety incidents.

Recommendation 1.1.2

- Health and social care practitioners should explain to patients, and their family members or carers where appropriate, how to identify and report medicines-related patient safety incidents.

Recommendation 1.1.3

- Organisations should ensure that robust and transparent processes are in

place to identify, report, prioritise, investigate and learn from medicines-related patient safety incidents, in line with national patient safety reporting systems – for example, the National Reporting and Learning System.

Recommendation 1.1.4

- Organisations should consider using multiple methods to identify medicines-related patient safety incidents – for example, health record review, patient surveys and direct observation of medicines administration. They should agree the approach locally and review arrangements regularly to reflect local and national learning.

Recommendation 1.1.6

- Organisations should consider assessing the training and education needs of health and social care practitioners to help patients and practitioners to identify and report medicines-related patient safety incidents.

Recommendation 1.1.7

- Health and social care practitioners should report all identified medicines-related patient safety incidents consistently and in a timely manner, in line with local and national patient safety reporting systems, to ensure that patient safety is not compromised.

Recommendation 1.1.10

- Organisations should consider exploring what barriers exist that may reduce reporting and learning from medicines-related patient safety incidents. Any barriers identified should be addressed – for example, using a documented action plan.

Recommendation 1.1.11

- Health and social care organisations and practitioners should:
  - ensure that action is taken to reduce further risk when medicines-related patient safety incidents are identified
  - apply and share learning in the organisation and across the local

health economy, including feedback on trends or significant incidents to support continuing professional development. This may be through a medicines safety officer, controlled drugs accountable officer or other medicines safety lead.

Recommendation 1.2.1

- Organisations should ensure that robust and transparent processes are in place, so that when a person is transferred from one care setting to another:
  - the current care provider shares[1] complete and accurate information about the person's medicines with the new care provider **and**
  - the new care provider receives and documents this information, and acts on it.

  Organisational and individual roles and responsibilities should be clearly defined. Regularly review and monitor the effectiveness of these processes.

Recommendation 1.2.2

- For all care settings, health and social care practitioners should proactively share complete and accurate information about medicines:
  - ideally within 24 hours of the person being transferred, to ensure that patient safety is not compromised **and**
  - in the most effective and secure way, such as by secure electronic communication, recognising that more than one approach may be needed.

Recommendation 1.2.4

- Health and social care practitioners should discuss relevant information about medicines with the person, and their family members or carers where appropriate, at the time of transfer. They should give the person, and their family members or carers where appropriate, a complete and accurate list of their medicines in a format that is suitable for them. This

[1] Take into account the 5 rules set out in the Health and Social Care Information Centre's A guide to confidentiality in health and social care (2013) when sharing information.

should include all current medicines and any changes to medicines made during their stay.

Recommendation 1.2.6

- Organisations should consider arranging additional support for some groups of people when they have been discharged from hospital, such as pharmacist counselling, telephone follow-up, and GP or nurse follow-up home visits. These groups may include:
  - adults, children and young people taking multiple medicines (polypharmacy)
  - adults, children and young people with chronic or long-term conditions
  - older people.

Recommendation 1.3.1

- In an acute setting, accurately list all of the person's medicines (including prescribed, over-the-counter and complementary medicines) and carry out medicines reconciliation within 24 hours or sooner if clinically necessary, when the person moves from one care setting to another – for example, if they are admitted to hospital.

Recommendation 1.3.3

- In primary care, carry out medicines reconciliation for all people who have been discharged from hospital or another care setting. This should happen as soon as is practically possible, before a prescription or new supply of medicines is issued and within 1 week of the GP practice receiving the information.

Recommendation 1.4.1

- Consider carrying out a structured medication review for some groups of people when a clear purpose for the review has been identified. These groups may include:
  - adults, children and young people taking multiple medicines (polypharmacy)
  - adults, children and young people with chronic or long-term conditions

– older people.

Recommendation 1.8.1

- Organisations should consider a multidisciplinary team approach to improve outcomes for people who have long-term conditions and take multiple medicines (polypharmacy).

Case scenario 2: Polypharmacy and medication review

A discharge letter is received in your practice for your patient Sarah, who was discharged from hospital 5 days ago after being admitted for an exacerbation of her chronic obstructive pulmonary disease (COPD). Sarah is 54 years old and is an ex-smoker. She also has a medical history of diabetes mellitus and hypertension. During reconciliation of Sarah's medicines, you notice that she is on the following medicines:

- tiotropium inhaler (18 micrograms) 1 puff once a day
- fluticasone propionate 100 micrograms/salmeterol (as xinafoate) 50 micrograms Accuhaler® 1 puff twice a day
- salbutamol inhaler 1–2 puffs when required
- carbocisteine 750 mg twice a day
- metformin 1 g twice a day
- gliclazide 80 mg once a day
- atorvastatin 40 mg once a day
- aspirin 75 mg once a day
- ramipril 10 mg once a day
- amlodipine 10 mg once a day
- citalopram 20 mg once a day
- zopiclone 7.5 mg at night
- prednisolone (short course) 30 mg once a day for 7 days
- doxycycline (short course) 100 mg once a day for 7 days.

Sarah has had recurrent admissions into hospital for COPD exacerbations over the past 18 months.

2.1 Question

Is Sarah a candidate for a medication review? Why?

2.1 Answer

Some discussion points and questions are shown below, but this is not a comprehensive list:

- Yes, Sarah is a candidate for medication review. See recommendation 1.4.1 in the NICE guideline on medicines optimisation.
- Is there a clear purpose to carry out a medication review?
  - polypharmacy – Sarah is using multiple medicines to manage multiple long-term conditions
  - long-term conditions (co-morbidities) – Sarah has COPD, diabetes and hypertension
  - recurrent admissions for COPD exacerbations – can Sarah's current medicines regime be optimised?
  - what needs reviewing? All medicines or just those for COPD?
  - has she attended follow-up appointments, for example pulmonary rehabilitation or practice nurse COPD reviews?
  - will Sarah benefit from a medication review?

- Does Sarah want to be involved in a medication review? What are her needs and preferences?
- Has medicines reconciliation been carried out in primary care following Sarah's discharge from hospital so that an accurate list of medicines is available?

2.2 Question

Who can carry out the medication review and who should be involved?

2.2 Answer

- See recommendation 1.4.2. The NICE guideline on medicines optimisation does not specify a particular health professional to carry out a structured medication review. However, the person needs the appropriate knowledge and skills, including all of the following:
  - technical knowledge of processes for managing medicines
  - therapeutic knowledge on medicines use
  - effective communication skills.

- The medication review may be led, for example, by a pharmacist or by an appropriate health professional who is part of a multidisciplinary team.
- The patient, family member and/or carer should also be involved.

2.3 Question

What would you ask Sarah during the medication review?

2.3 Answer

- See recommendation 1.4.3 in NICE's guideline on medicines optimisation.
- Is there a reason for the recurrent admissions to hospital for exacerbations of COPD?
  - Are there any problems with medicines adherence?
  - Has the oral steroid (prednisolone) dose been reduced too quickly?
  - Has she had any problems using the inhaler devices? (Note: she is using 2 different devices; a metered dose inhaler and an Accuhaler®.)
  - What are her lifestyle habits, for example has she restarted smoking or passive smoking.
  - Has she attended follow-up appointments, for example pulmonary rehabilitation?

- Polypharmacy issues – how would this be best managed?
  - What are Sarah's needs and preferences in relation to her COPD medicines?
  - Discuss with Sarah, a family member and/or carer and:
    - ◊ find out all the medicines Sarah is currently taking and the reasons for each one. Is the polypharmacy appropriate or problematic? (see Glossary for definitions)
    - ◊ consider the overall risk of medicines-induced harm to help determine the urgency of stopping any medicines
    - ◊ assess each medicine for its current or future benefit potential compared with current or future harm or if it adds to the burden of taking medicines
    - ◊ prioritise medicines for stopping that have the lowest benefit–harm ratio and lowest likelihood of adverse withdrawal reactions or disease rebound syndromes
    - ◊ implement a regimen to stop the medicine(s) and monitor Sarah closely for improvement in outcomes or onset of adverse effects.
  - The following tools can be considered for use during a medication review:

    - ◊ STOPP/START tool – NHS Cumbria toolkit
    - ◊ Beers Criteria (updated 2012)
    - ◊ Drug effectiveness summary (NHS Highland tool, Medication Appropriateness Index tool, NO TEARS).
- Co-morbidities – has the frequent use of oral steroids to manage Sarah's COPD exacerbations worsened her diabetes control? Can Sarah's diabetes medicines be optimised, if needed? It is important to get Sarah's views on which symptoms are most important to manage. Consider falls risk assessment.

2.4 Question

What additional support can be considered to allow Sarah to be more involved in managing her recurrent COPD exacerbations?

2.4 Answer

- Use of a self-management plan. See recommendation 1.5.1 in NICE's guideline on medicines optimisation.
  - How often would this plan be reviewed?
  - How would you assess if this is suitable for the patient?
- Post-discharge support. See recommendation 1.2.6 and question 1.5.
- Other services currently available in England which may offer support for Sarah, for example the new medicine service or medicines use review service.

Related recommendations from NICE guideline NG5: Medicines optimisation

Recommendation 1.2.6

- Organisations should consider arranging additional support for some groups of people when they have been discharged from hospital, such as pharmacist counselling, telephone follow-up, and GP or nurse follow-up home visits. These groups may include:
  - adults, children and young people taking multiple medicines (polypharmacy)

- adults, children and young people with chronic or long-term conditions
- older people.

Recommendation 1.3.3

- In primary care, carry out medicines reconciliation for all people who have been discharged from hospital or another care setting. This should happen as soon as is practically possible, before a prescription or new supply of medicines is issued and within 1 week of the GP practice receiving the information.

Recommendation 1.4.1

- Consider carrying out a structured medication review for some groups of people when a clear purpose for the review has been identified. These groups may include:
  - adults, children and young people taking multiple medicines (polypharmacy)
  - adults, children and young people with chronic or long-term conditions
  - older people.

Recommendation 1.4.2

- Organisations should determine locally the most appropriate health professional to carry out a structured medication review, based on their knowledge and skills, including all of the following:
  - technical knowledge of processes for managing medicines
  - therapeutic knowledge on medicines use
  - effective communication skills.

  The medication review may be led, for example, by a pharmacist or by an appropriate health professional who is part of a multidisciplinary team.

Recommendation 1.4.3

- During a structured medication review, take into account:
  - the person's, and their family members or carers where appropriate, views and understanding about their medicines
  - the person's, and their family members' or carers' where appropriate, concerns, questions or problems with the medicines

- all prescribed, over-the-counter and complementary medicines that the person is taking or using, and what these are for
- how safe the medicines are, how well they work for the person, how appropriate they are, and whether their use is in line with national guidance
- whether the person has had or has any risk factors for developing adverse drug reactions (report adverse drug reactions in line with the yellow card scheme)
- any monitoring that is needed.

Recommendation 1.5.1

- When discussing medicines with people who have chronic or long-term conditions, consider using an individualised, documented self-management plan to support people who want to be involved in managing their medicines. Discuss at least all of the following:
  - the person's knowledge and skills needed to use the plan, using a risk assessment if needed
  - the benefits and risks of using the plan
  - the person's values and preferences
  - how to use the plan
  - any support, signposting or monitoring the person needs.

  Record the discussion in the person's medical notes or care plan as appropriate.

Recommendation 1.5.3

- Review the self-management plan to ensure the person does not have problems using it.

Case scenario 3: Shared decision-making

Derek is a 62-year-old non-smoker with hypertension. Using QRISK2, you have calculated that he has a 15% estimated 10-year risk of developing coronary heart disease (CHD) or having a stroke.

3.1 Question

What will you say to Derek? What questions will you ask him?

3.1 Answer

Some discussion points and questions are shown below, but this is not a comprehensive list:

- **Lifestyle**. NICE recommends that people are advised and supported to make lifestyle changes (see the NICE guideline on lipid modification). Suggested questions:
  - How much exercise do you get?
  - How much alcohol do you drink each week, on average?
  - Can you tell me about your usual diet?

- **Formal risk assessment process**. NICE recommends that the process of formal risk assessment is discussed with the person identified as being at risk, including the option of declining this assessment (see the NICE guideline on lipid modification). Suggested questions:
  - What do you think affects your risk of getting heart disease or having a stroke?
  - How do you feel about us assessing and discussing your risk of getting heart disease or having a stroke?

- **Information on cardiovascular risk**. If Derek decides to have a formal risk assessment, NICE recommends that adequate time is set aside during the consultation to provide information on formal risk assessment and to allow any questions to be answered. People should be offered information about their absolute risk of cardiovascular disease over a 10-year period. Suggested questions:

  - What is your understanding of your risk of getting heart disease or having a stroke?
  - How do you feel about your risk being 15% (that means 15 out of 100 people)?

- **Offer choice**. NICE recommends that before offering statin treatment for primary prevention, the benefits of lifestyle modification should be discussed and the management of all other modifiable cardiovascular risk factors optimised, if possible (see the NICE guideline on lipid modification). Derek should be offered the opportunity to have his cardiovascular risk assessed again, after he has tried to change his lifestyle. If lifestyle modification is ineffective or inappropriate, NICE recommends that atorvastatin 20 mg daily is offered to people who have a 10% or greater 10-year risk of developing cardiovascular disease, estimated using QRISK2. Suggested questions to start the discussions:
  - Now we need to decide what to do next. Shall we discuss your options?
  - How do you feel about making some lifestyle changes?
  - What have you heard about statins?

- You may also want to check that Derek understands what you have discussed. Suggested question:
  - Can you tell me about the options in your own words?

- **Explain why a choice exists**. Treatments have different benefits and harms and individual people will weigh these differently. You need to make a choice that's right for you. Suggested questions:
  - What are your goals for treatment?
  - What outcomes would be acceptable to you?
  - How can I help you to consider the different options?

3.2 Question

Would a patient decision aid be a suitable tool to help Derek consider whether or not to take a statin, and why?

3.2 Answer

- Yes, a patient decision aid would be a suitable choice in this scenario, if Derek would like to use one.
- Patient decision aids are particularly useful when making a 'preference-sensitive' decision that involves trade-offs between the benefits and harms of treatment. The right choice for an individual person will depend on the importance they give to these trade-offs.
- When people are confronting these 'preference-sensitive' decisions, it is particularly important to give them information that is supported by high-quality evidence. There is high-quality evidence for statins in reducing cardiovascular risk; therefore NICE makes a 'strong' recommendation. A patient decision aid based on low-quality evidence could potentially mislead, because there is less certainty about the effect of treatment.
- There is good evidence to support the use of patient decision aids to improve patient knowledge, increase patient involvement in decision-making and reduce the anxiety and uncertainty people feel when making these decisions. NICE makes 'strong' recommendations to use them, if appropriate – see recommendation 1.5.26 in the NICE guideline on patient experience in adult NHS services and recommendation 1.6.4 in the NICE guideline on medicines optimisation.
- A patient decision aid should not be used to replace discussions with the patient; it is not a substitute for effective consultation skills. They are tools that can help to support decision-making.

3.3 Question

With Derek's agreement you decide to use the NICE patient decision aid on lipid modification to help you provide evidence-based information. How would you describe the benefits and harms of atorvastatin treatment to Derek?

Note: You will need to refer to pages 10–11 (benefits) and pages 22–23 (harms) of the Lipid modification patient decision aid.

3.3 Answer

A suggested discussion is shown below. However, you will need to develop, practice and refine your own approach to having these person-centred discussions.

Benefits of statin treatment:

- If there were 100 people like you, with an estimated cardiovascular risk of 15% over the next 10 years, that means that, on average, if none of those people take atorvastatin, over the next 10 years, 15 people out of 100 will develop coronary heart disease (CHD) or have a stroke (the red faces).
- On average, 85 people out of 100 will not have a cardiovascular event over the next 10 years (the green faces).
- Unfortunately we don't know what will happen to you – whether you will be one of the 85 people who doesn't develop CHD or have a stroke, or one of the 15 people who will and if so when that event may happen (there is uncertainty).
- If all 100 people take atorvastatin at the usual recommended dose for 10 years, over that time, on average:
  - 6 people will be saved from developing CHD or having a stroke (the yellow faces)
  - 85 people will not develop CHD or have a stroke, but would not have done anyway (the green faces)
  - 9 people will still develop CHD or have a stroke (the red faces).

- Check that Derek understands all the information.

Harms of statin treatment:

- If there were 100 people like you, on average, if none of those people take atorvastatin, over the next 5 years, 6 people will develop diabetes (the red faces).
- On average, 94 people will not develop diabetes (the green faces).
- Unfortunately we don't know what will happen to you – whether you will be one of the 94 people who doesn't develop diabetes, or one of the 6 people who will and if so when this may happen (there is uncertainty).

- If all 100 people take atorvastatin for 5 years, over that time, on average:
  - 91 people will not develop diabetes (the green faces)
  - 6 people will develop diabetes (the red faces), just as they would have done anyway
  - An extra 3 people will develop diabetes (the green faces with the red cross).

- Check that Derek understands all the information.

3.4 Question

After discussion and consideration of the options, Derek makes the decision not to take atorvastatin. What will you say to Derek?

3.4 Answer

Suggested responses may include:

- 'That's fine'. Derek has had the opportunity to make an informed decision. Even if you disagree with Derek's decision, you should recognise that Derek's values and preferences may be different from your own, and respect his decision. Derek should not be aware that you disagree if that is the case.
- 'It's OK change your mind at any time.' Derek should know that saying no to treatment now doesn't stop him receiving atorvastatin in future. Check that he feels ready to make the decision – he may want to take some time to think about it further, or discuss with friends and family.
- 'Would you like us to review this decision in future?' You can explain that although Derek's estimated cardiovascular risk is 15% now, it is likely to increase in future as he gets older. His clinical situation may also change, which may prompt a review of his decision. Although Derek doesn't want to take atorvastatin at this time, he may decide to in the future.
- 'If you can make any of the changes to your lifestyle that we have discussed this will help to reduce your cardiovascular risk and improve your overall health.' Use the opportunity to reinforce the benefits of lifestyle modification and signpost to available support in the local area.
- 'Do you have any other questions?'

Record the discussion about the options and Derek's decision in his clinical notes.

Related recommendations from NICE guideline NG5: Medicines optimisation

Recommendation 1.6.1

- Offer all people the opportunity to be involved in making decisions about their medicines. Find out what level of involvement in decision-making the person would like and avoid making assumptions about this.

Recommendation 1.6.2

- Find out about a person's values and preferences by discussing what is important to them about managing their condition(s) and their medicines. Recognise that the person's values and preferences may be different from those of the health professional and avoid making assumptions about these.

Recommendation 1.6.3

- Apply the principles of evidence-based medicine when discussing the available treatment options with a person in a consultation about medicines. Use the best available evidence when making decisions with or for individuals, together with clinical expertise and the person's values and preferences.

Recommendation 1.6.4

- In a consultation about medicines, offer the person, and their family members or carers where appropriate, the opportunity to use a patient decision aid (when one is available) to help them make a preference-sensitive decision that involves trade-offs between benefits and harms. Ensure the patient decision aid is appropriate in the context of the consultation as a whole.

Recommendation 1.6.5

- Do not use a patient decision aid to replace discussions with a person in a consultation about medicines.

Recommendation 1.6.6

- Recognise that it may be appropriate to have more than one consultation to ensure that a person can make an informed decision about their medicines. Give the person the opportunity to review their decision, because this may change over time – for example, a person's baseline risk may change.

Recommendation 1.6.7

- Ensure that patient decision aids used in consultations about medicines have followed a robust and transparent development process, in line with the IPDAS criteria.

Recommendation 1.6.8

- Before using a patient decision aid with a person in a consultation about medicines, read and understand its content, paying particular attention to its limitations and the need to adjust discussions according to the person's baseline risk.

Recommendation 1.6.9

- Ensure that the necessary knowledge, skills and expertise have been obtained before using a patient decision aid. This includes:
  - relevant clinical knowledge
  - effective communication and consultation skills, especially when finding out patients' values and preferences
  - effective numeracy skills, especially when explaining the benefits and harms in natural frequencies, and relative and absolute risk
  - explaining the trade-offs between particular benefits and harms.

Recommendation 1.6.10

- Organisations should consider training and education needs for health professionals in developing the skills and expertise to use patient decision aids effectively in consultations about medicines with patients, and their family members or carers where appropriate.

Recommendation 1.6.11

- Organisations should consider identifying and prioritising which patient

decision aids are needed for their patient population through, for example, a local medicines decision-making group. They should agree a consistent, targeted approach in line with local pathways and review the use of these patient decision aids regularly.

Recommendation 1.6.12

- Organisations and health professionals should ensure that patient decision aids prioritised for use locally are disseminated to all relevant health professionals and stakeholder groups, such as clinical networks.

Related recommendations from NICE guideline CG181: Lipid modification

Recommendation 1.1.5

- Discuss the process of risk assessment with the person identified as being at risk, including the option of declining any formal risk assessment.

Recommendation 1.1.24

- Set aside adequate time during the consultation to provide information on risk assessment and to allow any questions to be answered. Further consultation may be required.

Recommendation 1.1.25

- Document the discussion relating to the consultation on risk assessment and the person's decision.

Recommendation 1.3.12

- The decision whether to start statin therapy should be made after an informed discussion between the clinician and the person about the risks and benefits of statin treatment, taking into account additional factors such as potential benefits from lifestyle modifications, informed patient preference, comorbidities, polypharmacy, general frailty and life expectancy.

Recommendation 1.3.14

- Before offering statin treatment for primary prevention, discuss the benefits of lifestyle modification and optimise the management of all other modifiable

CVD risk factors if possible.

Recommendation 1.3.18

- Offer atorvastatin 20 mg for the primary prevention of CVD to people who have a 10% or greater 10-year risk of developing CVD. Estimate the level of risk using the QRISK2 assessment tool.

Case scenario 4: Models of care and collaborative working

A local clinical commissioning group decides to review a service for people with osteoporosis who have been identified as having an increased risk of falls. Regional data on hospital admissions show that the number of hospital admissions because of falls and resulting fractures is increasing and there is a large elderly population in the local health economy.

4.1 Question

Who should be involved in reviewing this service? What are the opportunities for improving multidisciplinary and cross-sector working?

4.1 Answer

- See recommendation 1.8.1 in the NICE guideline on medicines optimisation.
- Commissioners need to work with a range of organisations when planning services, including health and wellbeing boards, social care, voluntary agencies and charities and patients and their family members or carers.
- Commissioners need to liaise with other related services, particularly urgent care services, mental health, falls prevention, bone health, primary care and social services. Some of these services could also have a role in raising awareness of falls prevention in people with osteoporosis.
- Take into account patient safety, patient experience and timely access to assessment and treatment.
- Effective management of osteoporosis and fall prevention strategies needs to involve people in different organisations with different skills (such as medical, non-medical, social and multidisciplinary rehabilitation skills) working together.
- Take into account recommendations from the national audit of falls and bone health in older people.
- A multidisciplinary approach covering the full care pathway from presentation to follow-up (including when people move from one care setting to another) is needed.

4.2 Question

What are your experiences of multidisciplinary and cross-sector working locally? What works well and what are the challenges?

4.2 Answer

Some discussion points and questions are shown below, but this is not a comprehensive list.

- What services have you been involved in?
- What organisations have you worked with?
- What health and social care practitioners have you worked with?
- Are there clear lines of responsibilities of different health and social care practitioners involved in the service?
- What is your understanding of commissioning arrangements and service level agreements?
- How does the monitoring and evaluation of any service work?
- How should patients and the public be involved in any review?
- What has worked well, and why?
- What specific challenges were encountered and what was done to address these?
- What are the links with pharmacy teams in different care settings when the service has involved medicines?

Related recommendations from NICE guideline NG5: Medicines optimisation

Recommendation 1.8.1

- Organisations should consider a multidisciplinary team approach to improve outcomes for people who have long-term conditions and take multiple medicines (polypharmacy).

Recommendation 1.8.2

- Organisations should involve a pharmacist with relevant clinical knowledge and skills when making strategic decisions about medicines use or when developing care pathways that involve medicines use.

Glossary

Appropriate polypharmacy

Prescribing for an individual for complex conditions or for multiple conditions in circumstances where medicines use has been optimised and where the medicines are prescribed according to best evidence (King's Fund, 2013).

Medicines reconciliation

The process of identifying the most accurate list of a patient's current medicines – including the name, dosage, frequency and route – and comparing them to the current list in use, recognising any discrepancies, and documenting any changes, thus resulting in a complete list of medications, accurately communicated.

Patient decision aid

An intervention designed to support patients' decision-making by providing information about treatment or screening options and their associated outcomes

Polypharmacy

Concurrent use of multiple medications by one individual (King's Fund, 2013).

Preference-sensitive decision

Decisions about treatment made based on the person's preferences and personal values of each treatment option presented. Decisions should be made only after patients have enough information to make an informed choice, in partnership with the prescriber.

Problematic polypharmacy

Prescribing of multiple medications inappropriately, or where the intended benefit of the medication is not realised (King's Fund, 2013).

Other implementation tools

NICE has developed tools to help organisations implement the guideline on medicines optimisation (listed below). These are available on the NICE website (http://www.nice.org.uk/Guidance/NG5).

- Medicines optimisation: baseline assessment tool.
- Medicines optimisation: costing statement.

The Into practice guide: Using NICE guidance and quality standards to improve practice is also available. The guide provides practical advice on how to use NICE guidance and related quality standards to achieve high quality care.