NHS North Derbyshire Clinical Commissioning Group
NHS Erewash Clinical Commissioning Group
NHS Hardwick Clinical Commissioning Group
NHS Southern Derbyshire Clinical Commissioning Group

Deprescribing: A Practical Guide

The information in this booklet should be used as a pragmatic decision aid, in conjunction with other relevant patient specific data.

Useful resource links
http://www.derbyshiremedicinesmanagement.nhs.uk/assets/Clinical_Guidelines/clinical_guidelines_front_page/PrescQipp_IMPACT.pdf
https://www.nice.org.uk/guidance/ng56/resources

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Original authors: Vicki Starkey & Temi Omorinoye Medicines Management Pharmacist
Updated by: Debbie Railton, Shabnum Aslam, Nigel Jones, Tom Goodwin, Medicines Management Pharmacists

Document updates	Date update
All four CCG logos added to the front cover Link to NICE resource tool and IMPACT tool added to front cover Definition added Possible barriers added Links to use deprescribing algorithms updated Further Training Resources added	September 2017

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Deprescribing: A Practical Guide

September 2017

Definition

Deprescribing is synergistic with inappropriate polypharmacy and is the process of tapering, withdrawing, discontinuing or stopping medicines to reduce potentially problematic polypharmacy, adverse drug effects and inappropriate or ineffective medicine use by regularly re-evaluating the ongoing reasons for, and effectiveness of medication therapy. This should be done in partnership with the patient (and sometimes their carer) and supervised by a healthcare professional.

Aims of deprescribing

- Improve quality of life
- Avoid worsening of disease or causing withdrawal effects
- Be effective in reducing pill burden

Key Points

- Discuss deprescribing before initiating any new medicines for a trial period.
- It is essential to deprescribe, reduce or substitute inappropriate medicines.
- Deprescribing should be planned, one medicine at a time, offered as a trial, the dose gradually tapered and any returning symptoms monitored.
- Deprescribing should be performed as a partnership between the patient and the prescriber.
- Regular patient review, with support from a healthcare professional is required for successful deprescribing.
- It is sometimes better not to start a medicine than to tackle deprescribing in the future, particularly in certain therapeutic areas.
- Older people, those who are end of life and those with increasing frailty are frequently prescribed unnecessary or higher risk medicines and should have more frequent medication reviews.

How to deliver

Steps to stopping a medication

A five step process can be used when stopping medicines; this should be initially as a trial:

1. Gain a comprehensive medication history and check adherence, if a medicine is rarely or never taken this makes stopping easy (e.g. patient states in the consultation they are not taking a particular medicine or if the medicine is administered the patient may continually spit out doses without swallowing).
2. Identify any potentially inappropriate polypharmacy (PIP).
3. Determine whether the PIP can be stopped.
4. Plan the withdrawal regimen: reduce or stop one medicine at a time, if problems develop it makes it easier to identify the likely cause.

Consider if the medicine can be stopped abruptly, e.g. if toxicity has developed, or needs to be tapered, this is usually the best option; sometimes a smaller dose may need to be continued long term.

5. Check for benefit or harm after each medicine has been reduced or stopped (provide contact details to the patient for support in case of problems), this may include monitoring tests.

However, there are different approaches to stopping medicines that may be emploued:

- **Stepwise' approach**

Useful if the patient is well and clinically stable but there is a risk that multiple changes in drugs will destabilise their situation. Tapering the dose helps reduce the likelihood of an adverse withdrawal event for some medicines.

- **All at once'**

Useful if the patient is unwell as a result of likely drug side effects or in a safe monitored environment (e.g. admission to hospital).

- **Mixed' approach**

In practice, often several drugs can be stopped or reduced at once with little chance of harm. However, certain drugs (e.g. antidepressant and antipsychotic drugs) will need to be withdrawn more cautiously. In these situations it should be documented clearly which drugs can be stopped immediately and which drugs are to be withdrawn more cautiously.

Possible barriers

Deprescribing must be done judiciously, with monitoring, to avoid worsening of disease or causing withdrawal effects. This needs careful discussion on an individual basis to gain patient understanding and acceptance. It may be helpful to use different terminology for patients. Treatment and care should take into account individual needs and preferences. People who use health and social care services should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals and social care practitioners. It is recognised this is a complex process, not a single act, involving multiple steps.

- Breach of duty
  A healthcare professional is open to a claim of clinical negligence if their actions fall below the reasonable standard of their peers. To succeed in a claim of clinical negligence, a claimant must establish all of the following elements:

- A duty of care – A healthcare professional has a clear duty of care to patients under their care.

  AND

- Breach of duty – It must be shown that the claimant did not receive the appropriate standard of reasonable care.

This is established where it can be shown that no other reasonable practitioner of like expertise, skill and experience, faced with the same set of circumstances would have acted likewise.

AND

- Harm was caused

AND

- Causation arises where it can be shown that *but for* the negligence act or omission, the outcome would have been different i.e. the breach in duty *caused* the adverse outcome which arose. This link can be difficult to prove.

- Communication/ Shared decision making
  Patients have a right to be involved in discussions and make informed decisions about their care. The person's needs and preferences must be considered. The treatment, care and if appropriate the deprescribing process should all be explained in a way the person understands. Suggested definition of deprescribing for patients would involve the words:

  Helping you to take the right medicines for you'.

  To avoid misunderstanding, suggest a 'trial without' rather than just stopping medicines.

Patient decision aids (PDA's) are of value for the shared decision making process. These are appropriate when more than one course of action is possible and where the best decision depends on the patient's reaction to the outcome probabilities. Short versions that can be used in a consultation include PDAs developed by NICE as part of a clinical guideline intended to help a person making a decision weigh up the possible advantages and disadvantages of the different treatment options (which may include no treatment) – see *Useful deprescribing algorithms section*.

Clinical documentation

Good clinical documentation is essential when deprescribing. There should be a clear record of the logical reasons behind the changes being made, particularly where the care decision does not match what the best available evidence seems to suggest.

Lack of consent

Consent of the individual must be sought and where applicable then a mental capacity assessment completed if appropriate. To be valid consent requires three essential components – it must be **free, full and informed** - i.e. a patient must have capacity to make the decision in full knowledge of all relevant information and must do so voluntarily.

Time

Enough time is needed to discuss care. This may result in longer or alternative forms of consultation, and regular, planned reviews may be of benefit.

As deprescribing becomes accepted practice practitioners who fail to consider deprescribing and advise patients of the potential benefits and options may expose themselves to clinical negligence claims. Patient consent to stop, start, change or reduce a medicine must be based on full disclosure of all material risks to that patient. When deprescribing is undertaken in partnership with patients, supported by the knowledge, skills and experience of both patient and clinicians and the patient's values and preferences based on clinical skill, judgement and evidence based medicine, the law presents no barriers to deprescribing.

Identification of patients who may benefit

It is important to consider patient groups that are likely to be taking many medicines and are particularly vulnerable to adverse drug reactions. These include:

- Multi-morbidity patients- presence of two or more long-term health conditions
- Polypharmacy- patients taking large numbers of medicines (>15)
- Elderly (>75yr) frail patients
- Housebound patients
- Patients with indications of shortened life expectancy/ end of life
- Vulnerable patients
- Decline in hepatic function / renal function

Identifying frailty

Adults who have frailty are at particular risk of adverse drug reactions, drug to drug interactions and rapid deterioration if necessary medication is not optimised (e.g. for treatment of heart failure). Frailty assessment must be considered in people with multimorbidity.

Various tools exist to identify and assess frailty. The Gold Standards Framework defines frailty as:

- Individuals who present with multiple co morbidities with significant impairment in day to day living and:
- Deteriorating functional score e.g. performance status
- Combination of at least three of the following symptoms:
  Weakness
  Slow walking speed
  Significant weight loss
  Exhaustion
  Low physical activity
  Depression

In patients with frailty deprescribing must be considered to reduce any inappropriate polypharmacy, monitoring renal function and hepatic function carefully and adjusting doses to prevent toxic accumulation of drugs.

End of Life

The palliative approach should be considered the last phase for patients with multi-morbidity in whom multiple active treatments are no longer appropriate one percent of patients on an average GP list will be coming towards the end of their life. When deprescribing in this group of patients consider the surprise question:

"Would you be surprised if this person died in the next year?"

- If 'No' then for any new medicine additional considerations are needed
- It may not be appropriate to start some medicines or to continue others.

Open and transparent discussions must be had with patient, relatives and carers and the following questions should be considered where appropriate:

- Who is taking responsibility for the medicines?
- What are the medicines achieving?
- The harm to benefit profile should be considered.

Risk vs Benefits of Medication

When deprescribing it is important to discuss benefit to harm profile with the patient using patient decision aids. The 'number needed to treat (NNT)' is a measure of how effective a particular medication is. The NNT is the average number of patients who are needed to be treated for one benefit to be realised compared with a control in a clinical trial. (defined as the inverse of relative risk reduction). So if treatment with a medicine for one year reduces the death rate over five years from 5% to 1%, the absolute risk reduction would be 4% (5 minus1) and the NNT would be 100/4 = 25. That means the number needed to treat with that medicine for one year to prevent one death is 25. The ideal NNT is 1, where everyone improves with treatment. The higher the NNT, the less effective the treatment.

The NICE database of treatment effects (NG56) is a useful interactive resource for prescribers to make decisions regarding which treatments are of benefit to the patient. This tool is designed to inform discussions between patient and clinician when considering the benefits and harms of taking long term medication as it shows basic data from clinical trials covering annualised absolute effect and numbers needed to treat.
https://www.nice.org.uk/guidance/ng56/resources

Approach to reviewing medicines

A number of screening tools are in use for carrying out medication reviews. Clinicians should use the tool they find the easiest to use to support the medication review process. The care should then be tailored to each individual patient's needs. Example of tools of use:

IMPACT tool: Improving Medicines and Polypharmacy Appropriateness Clinical Tool

STOP/START tool: identifies high risk problems in prescribing for older people, both in terms of reducing medicine burden and adding in potentially beneficial therapy.

NO TEARS: Need and indication, Open questions, Tests and monitoring, Evidence and guidelines, Adverse events, Risk reduction or prevention, Simplification and switches.

7-steps approach: Polypharmacy guidance centres around the individual patient.

Beers Criteria: Medicines that can cause increased adverse events in older people because of altered pharmacokinetics, co-morbidities or physiological changes associated with aging.

It is also important, when optimising treatment to consider non-pharmacological treatments that may be started as well as stopped.

Aide Memoire of things to consider before initiating a new medicine or continuing prescribing

1. Disease

Are the symptoms caused by a disease or due to a medicine already being taken? (Have all medicines been taken correctly?)

Consider the time to benefit, have you asked yourself the 'surprise question'? Is the patient moving towards end of life?

Has physiology changed significantly? Will this affect the metabolism of the proposed medicine?

2. Medicine

Is there a documented indication for the medicine about to be prescribed?

Is the medicine effective for the condition? Is there sufficient evidence? Does the medicine produce limited benefits for the indication?

Are there any clinically significant drug interactions? Have these been explained to the patient?

Is there unnecessary duplication with other medicines?

Is the likely duration of therapy known and acceptable to both doctor and patient?

Is the use of the medicine consistent with current guidelines?

Does the dose need to be titrated? If so by who and how? Is the patient aware?

3. Patient

Will the patient take/ use the medicine? What are the likely adverse effects?

Is the dose and frequency correct? Is the frequency practical for the patient?

Do they feel they have an acceptable medication burden?

Will the patient comply with any monitoring? Will the new medicine excessively add to the medication burden?

What is the clinical and personal significance of this specific medicine for this particular patient?

How will the patient know the medicine is working?

When will you follow up and who should the patient contact is any problems arise?

Does the patient understand the expected outcomes and what will happen if they are not reached or reduce over time? Has deprescribing been discussed before initiating a new medicine?

Is the patient (and /or their family or carer) aware of stopping criteria and any alternatives following this treatment- are they at the end of a pathway?

4. Adherence

Have you explained how long it will take for the medicine to start working? Any potential side-effects?

Could the community pharmacist provide support using a New Medicine Service or Medicines Use Review?

Would a medication passport help?

5. Choice

Have you had an open and honest discussion about the advantages and disadvantages of the medicine?

Have you considered using a patient decision aid or tool to support and help the patient understand the NNT, NNH and probability of the risk and benefits of the proposed treatment?

Have you considered non-pharmacological options?

Does the patient need more time to consider the options fully? Do they need to discuss with their family or do they need more information? Is another consultation needed?

6. Cost

Is this medicine the least expensive compared with others of equal effectiveness?

Useful deprescribing algorithms

https://www.prescqipp.info/resources/send/356-polypharmacy-practical-guide-to-deprescribing/3415-attachment-2-proton-pump-inhibitor-desprescribing-algorithm

https://www.prescqipp.info/resources/send/356-polypharmacy-practical-guide-to-deprescribing/3416-attachment-3-noac-and-lmwh-deprescribing-algorithm

https://www.prescqipp.info/resources/send/356-polypharmacy-practical-guide-to-deprescribing/3417-attachment-4-bisphosphonates-for-osteoporosis-secondary-prevention-deprescribing-algorithm.

References

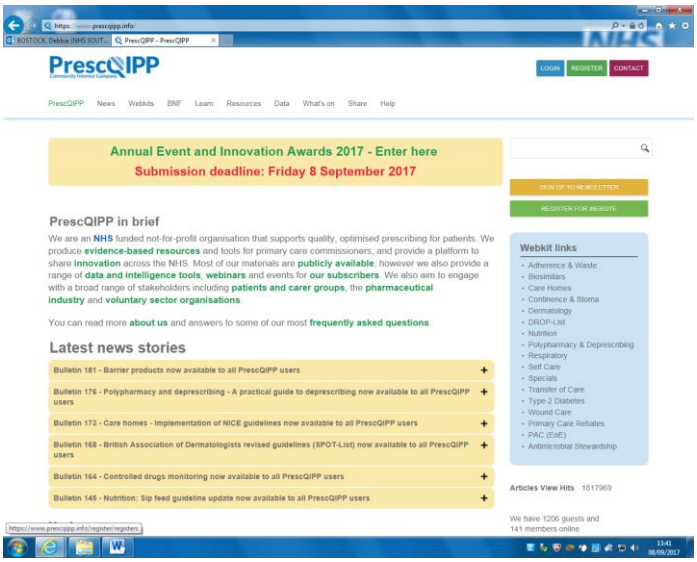
(1) Reeve E, Shakib S, Hendrix I, et al. Review of deprescribing processes and development of an evidence-based, patient-centred deprescribing process. Br J Clin Pharmacol 2014; 78:738-47.
(2) Thomas K et al. the Gold Standards Framework Centre in End of Life Care CIC. Prognostic Indicator Guidance (PIG) 4th edition. The Royal college of General Practitioners. October 2011.
(3) Duerden M, Avery T, Payne R et al. Polypharmacy and medicines optimisation: making it safe and sound. Kings Fund Report 2013.
(4) Shared decision making; NHS Right Care. The BMJ Group.2012.
(5) PRESQIPP resources, Modules 1-6 Polypharmacy and Deprescribing. 2017.
(6) NICE Medicines Optimisation NG5. The safe and effective use of medicines to enable the best possible outcome. https://www.nice.org.uk/guidance/ng5.
(7) Mental Capacity Act 2005 http://www.legislation.gov.uk/ukpga/2005/9/contents
(8) Kelly O, Barnett N. Deprescribing- Is the law on your side? European Journal of Hospital Pharmacy, Vol 24, Issue 1.
(9) NICE Multimorbidity: Clinical assessment and management. Database of treatment effects NG56. https://www.nice.org.uk/guidance/ng56/resources.
(10) NICE. Patient decision aid. Statins to reduce the risk of CHD and stroke: patient decision aid. 2014
(11) https://www.prescqipp.info/resources/send/356-polypharmacy-practical-guide-to-deprescribing/3415-attachment-2-proton-pump-inhibitor-desprescribing-algorithm
(12) https://www.prescqipp.info/resources/send/356-polypharmacy-practical-guide-to-deprescribing/3416-attachment-3-noac-and-lmwh-deprescribing-algorithm
(13) https://www.prescqipp.info/resources/send/356-polypharmacy-practical-guide-to-deprescribing/3417-attachment-4-bisphosphonates-for-osteoporosis-secondary-prevention-deprescribing-algorithm.

Further Training

Accessing the Deprescribing Programme Modules On-Line

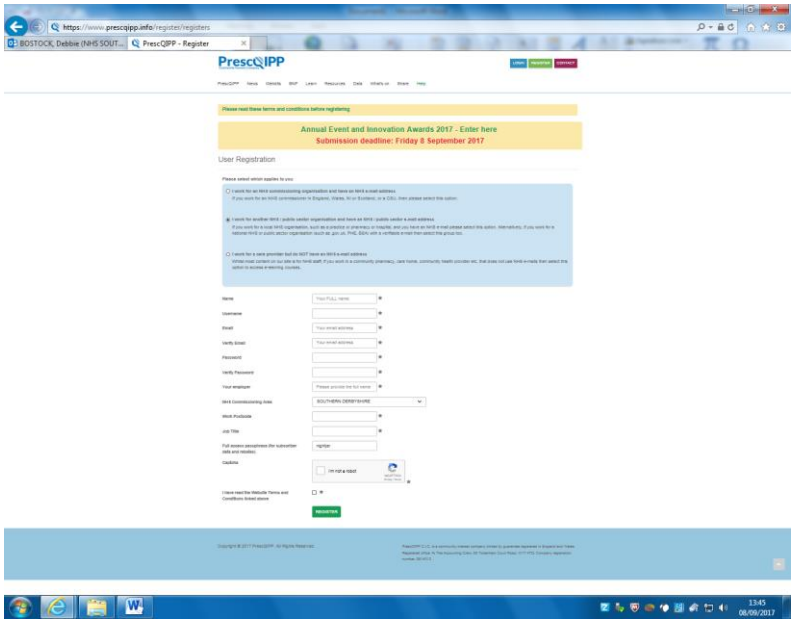
Step 1

Access PrescQIPP website- https://www.prescqipp.info/
If not already registered then register, if registered continue to ***Step 3***



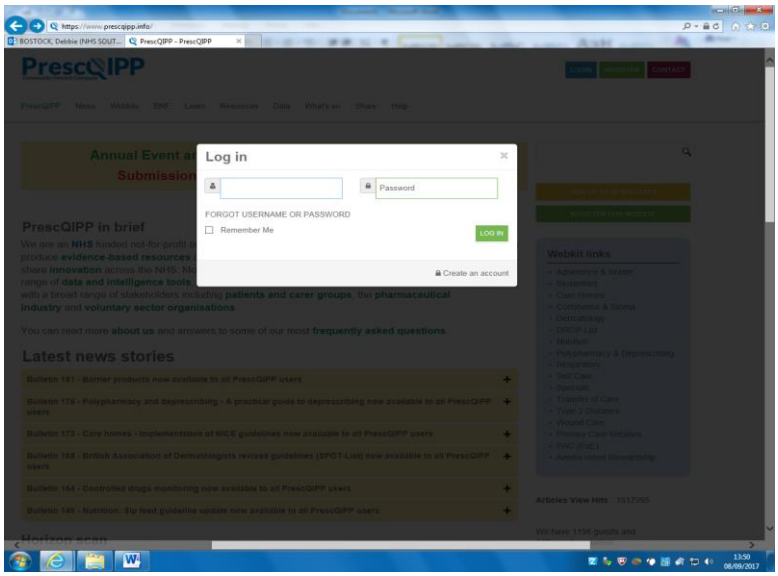
Complete the fields below

(The full access passphrase is 'nightjar')

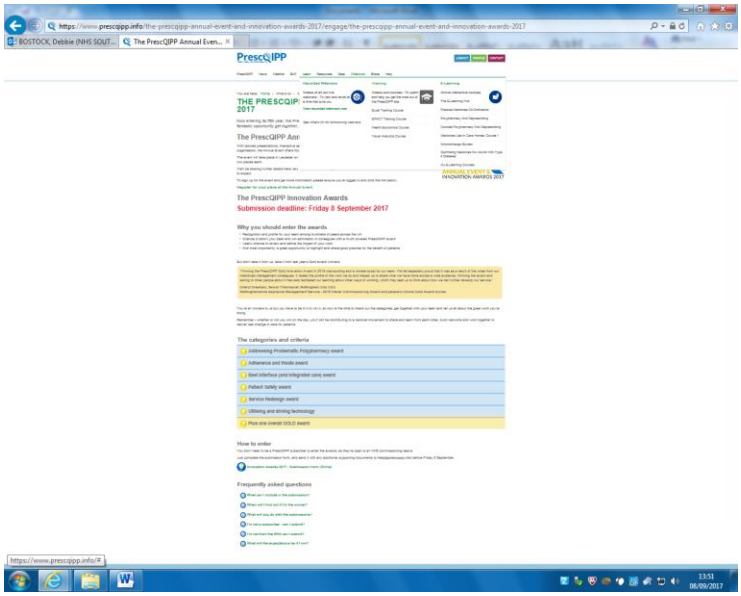


Step 3

Login to PrescQIPP



Click on the “learn” tab on top tool bar and select the polypharmacy and deprescribing option on the far right hand side the screen.



Once selected you may enrol onto the deprescribing programme.

Top medicines to consider 'trial without'

As a patient's circumstances change i.e. they become elderly, frail, problematic polypharmacy, at risk of falls etc., it is important to reconsider the benefit to harm ratio of medicines and reassess what we are trying to achieve for that patient. The following medicines warrant particular review.

Medicine	Comments	Rationale/Evidence
1. Quinine	Treatment should be interrupted at intervals of approx. 3 months to assess need for further quinine treatment (see BNF)	BNF recommends a trial discontinuation with long term use, not currently recommended by NICE or NHS evidence. http://arms.evidence.nhs.uk/resources/hub/1028784/attachment http://cks.nice.org.uk/restless-legs-syndrome#!scenario
2. Betahistine, prochlorperazine metoclopramide domperidone	Review indication / on-going symptoms. Review ongoing need – easy to restart if symptoms return. Could consider reducing betahistine 16mg TDS to 8mg TDS	**Metoclopramide** restricted to short-term use (up to 5 days) due to risk of neurological adverse effects; http://www.mhra.gov.uk/Safetyinformation/DrugSafetyUpdate/CON300404 **Domperidone** is now restricted to use in the relief of nausea and vomiting and maximum treatment duration 7 days due to risks of cardiac side effects; http://www.mhra.gov.uk/Safetyinformation/DrugSafetyUpdate/CON418518 **Betahistine;** insufficient evidence from RCTs to conclude if prevents Meniere's disease symptoms. The quality of trials suggesting it may help control vertigo, dizziness, or imbalance is limited. http://cks.nice.org.uk/menieres-disease#!supportingevidence1
3. Furosemide	Ensure on lowest effective dose – often gets stepped up but then not stepped back down again.	
4. Antidepressants	Taper SSRIs and venlafaxine over at least 4 weeks. Low dose Fluoxetine may not need to be tapered, due to a long half-life. A longer discontinuation may be required for drugs with shorter half-life or therapy duration > 8 weeks. E.g. reduce by 25% every four to six weeks. TCAs and related antidepressants (e.g. mianserin) should be withdrawn slowly e.g. by 25% every four weeks.	NICE recommend to continue medication for at least 6 months after remission of an episode of depression and reviewing patients for the need for continued antidepressant treatment beyond 6 months after remission, taking into account: •the number of previous episodes of depression •the presence of residual symptoms •concurrent physical health problems and psychosocial difficulties Depression in adults with a chronic physical health problem | 1-guidance | Guidance and guidelines | NICE
5. Anti-hypertensives	Review current BP control and consider if all antihypertensives are necessary. If appropriate to stop any, work backwards through algorithm. Most should be tapered. Taper dose at monthly intervals, over three to six months.	Consider risk of falls
6. Antipsychotics	Review quarterly if for behavioural symptoms in dementia Withdraw gradually after long term therapy (1-2 years) and monitor closely to avoid relapse.	DoH 2009. Banerjee, S. The use of antipsychotic medication for people with dementia: Time for action. A report for the Minister of State for Care Services
7. Weak opioid analgesics	Consider regular paracetamol as a potential alternative. Consider potential side effects such as constipation, confusion, risk of falls.	

<table>
<tr><td>8. PPIs</td><td>Stopping suddenly can cause rebound acid hyper-secretion, reduce to maintenance or PRN dosing for symptom control. Consider alternate day dosing or stepping down to an H2RA if a more gradual taper is required. Ensure if for gastro protection dose is lansoprazole 15mg or omeprazole 20mg.</td><td>Increased risk of C.diff (42%), osteoporotic fractures (29%), hypomagnesaemia (25%) usually > 1year treatment, Community Acquired Pneumonia (30%) within 14-30 days
http://www.awmsg.org/docs/awmsg/medman/All%20Wales%20Proton%20Pump%20Inhibitor%20and%20Dyspepsia%20Resource%20Pack.pdf</td></tr>
<tr><td>9. Statins</td><td>Should not normally be stopped in patients where used for secondary prevention, individual discussion re pro's and con's and quality of life required.</td><td><table><tr><th>Primary prevention outcome</th><th>5 year NNT</th></tr><tr><td>All-cause Mortality</td><td>138</td></tr><tr><td>Total CVD events</td><td>49</td></tr><tr><td>Total CHD events</td><td>88</td></tr><tr><td>Total Stroke</td><td>155</td></tr></table>http://www.nice.org.uk/guidance/cg181/evidence/cg181-lipid-modification-update-full-guideline3</td></tr>
<tr><td>10. Nitrate monotherapy</td><td>If symptom free consider if diagnosis is still correct (can be historical based on symptoms). If symptomatic, review angina therapy and consider beta-blocker or verapamil/diltiazem.</td><td></td></tr>
<tr><td>11. Laxatives</td><td>If >1 laxatives are used, reduce/stop one at a time. Reduce stimulant laxative first, increase the dose of the osmotic laxative if necessary. Restart if relapse occurs. Give advice on lifestyle measures including increased dietary fibre.</td><td>Stimulant laxatives are licensed only for short-term use. Excessive doses of, or inadequate fluid intake with bulk-forming laxatives can cause intestinal obstruction. Inadequate fluid intake with lactulose or macrogols can be dehydrating.</td></tr>
<tr><td>12. NSAIDS</td><td>Any ongoing clinical indication? Can be stopped abruptly or halve the dose for two to four weeks then stop.</td><td>Consider associated risk with NSAIDs e.g. declining renal function in the elderly and adverse GI effects.</td></tr>
<tr><td>13. Iron Supplements</td><td>Should continue for 3 months after deficiency corrected. Can be stopped without tapering</td><td></td></tr>
</table>

References:
A practical guide to stopping medicines in older people. Accessed on 26/11/14. Available at http://www.bpac.org.nz/BPJ/2010/April/stopguide

With acknowledgement to Helen Gregory, North Derbyshire CCG.