10-minute consultation

Using the NO TEARS tool for medication review

Tessa Lewis

This is part of a series of occasional articles on common problems in primary care

Carreg Wen Surgery, Blaenavon, Torfaen NP4 9AF Tessa Lewis general practitioner Tessa.Lewis@ gp-w93015.wales. nhs.uk

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The series is edited by general practitioners Ann McPherson and Deborah Waller (ann.mcpherson@ dphpc.ox.ac.uk)

The *BMJ* welcomes contributions from general practitioners to the series

A 76 year old man who used to see your recently retired partner presents with his repeat medication slip. He takes six drugs regularly, five of which need reauthorising.

What issues you should cover

At least a third of patients in Britain aged more than 75 years are taking four or more drugs. Adverse drug reactions are implicated in 5% to 17% of hospital admissions. Hence the dictum "first, do no harm" becomes prescient. Doctors need to be able to critically assess a patient's treatments. Waste is substantial: £19 000 (\$35 000; €29 000) worth of drugs were returned to pharmacies over an eight week period in Gwent.

Need and indication—Does he know why he takes each drug? Does he still need them? Was long term treatment intended? Is the dose appropriate? Has the diagnosis been refuted? Would non-pharmacological treatments be better?

Open questions—Give him the opportunity to express his views by asking questions: "I realise a lot of people don't take all their tablets. Do you have any problems?" "Can I check that we both agree what you're taking regularly?" or "Do you think your tablets work?" Compare his replies with the number of prescription requests.

Tests and monitoring—Assess disease control. Are any of his conditions undertreated? Get advice on appropriate monitoring from prescribing guidelines such as the *British National Formulary* or the US *Physicians' Desk Reference* and other primary care documents.

Evidence and guidelines—Has the evidence base changed since his prescription was initiated? Do the prescribing guidelines indicate that any of his drugs are now less suitable for prescribing? Is the dose appropriate? (For example, dose optimisation of angiotensin converting enzyme inhibitors in cardiac failure.) Are other investigations now advised, such as echocardiograpy or testing for Helicobacter pylori?

Adverse events—Does he have any side effects? Is he taking complementary medicines or over the counter preparations? Check for interactions, duplications, or contraindications. Remember the "prescribing cas-

The NO TEARS tool

Need and indication
Open questions
Tests and monitoring
Evidence and guidelines
Adverse events
Risk reduction or prevention
Simplification and switches

Useful reading

Task Force on Medicines Partnership. Room for review. A guide to medication review: the agenda for patients, practitioners and managers. London: Medicines Partnership, 2002

Rochon PA, Gurwitz JH. Optimising drug treatment for elderly people: the prescribing cascade. *BMJ* 1997;315:1096-9

Zermansky AG, Petty DR, Raynor DK, Freemantle N, Vail A, Lowe CJ. Randomised controlled trial of clinical medication review by a pharmacist of elderly patients receiving repeat prescriptions in general practice. *BMJ* 2001;323:1340-3

cade" (misinterpreting an adverse reaction as a new medical condition).

Risk reduction or prevention—If time allows, update opportunistic screening. What are his risks, such as of falls? Are the drugs optimised to reduce these risks?

Simplification and switches—Can treatment be simplified? Does he know which treatments are important? It may be better to replace low doses of several agents by one full dose. Explain any switches that increase the cost effectiveness of treatment.

What you should do

- Read code and document the discussion. It will make the next review easier and may be important medicolegally.
- Overlap of the parts of the NO TEARS tool means you can adapt it to your consultation style, increasing the chance of identifying a problem. For example, consideration of bone protection in patients taking steroids may be an adverse effect for one doctor, but another may deal with it at the guidelines or prevention stage.
- Identify important or controversial issues that may need to be covered at a subsequent consultation (adjust the number of authorised repeats accordingly).
- Agree a recall system with your colleagues. This should include a facility for amending the repeat prescription after home visits, discharge from hospital, and outpatient clinic attendances.
- In the United Kingdom the Task Force on Medicines Partnership has described various levels of medication review (see Useful reading). Although a pharmacist may do some types of review, it is important to remember that signing a script makes you ultimately responsible. A structured approach to repeat prescribing should improve the confidence of doctor and patient.