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EDITOR'S CHOICE

Good medicine rather than new medicines

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Truly new medicines are in short supply these days. A wonder drug in any field would be—well—wonderful, but such things are increasingly rare (*BMJ* 2010;340:c2115). Drug development and research are now mainly about seeking small advances on existing drugs, with finely balanced risks and benefits. In this post-blockbuster age, real improvements in patients' outcomes are harder won, and they depend not only on what drugs are available but also on who gets them, when, and how. This is the message from several of this week's articles, which focus on preventing venous thromboembolism after orthopaedic surgery and treating serious antibiotic resistant infections.

Venous thromboembolism after hip and knee surgery is the archetypal preventable disease. It's therefore a good target for drug development, and new oral anticoagulants abound—four are available in the UK. But deciding which to use is hard, because they haven't been directly compared with each other. Antonio Gómez-Outes and colleagues get round this lack of head to head studies by meta-analysing trials of the new drugs against a common comparator, enoxaparin (doi:10.1136/bmj.e3675). They find small variations in the balance between reduced clot formation and increased blood loss, but overall, using a composite clinical endpoint (symptomatic venous thromboembolism, major bleeding, and all cause mortality), they find no significant difference between the drugs.

In their accompanying editorial Elliott Haut and colleagues ask whether we are reaching a point of diminishing returns (doi:10.1136/bmj.e3820). With the available classes of drug, pushing thrombus rates lower causes more bleeding. "Unless new antithrombotic agents are developed that target pathological thrombus formation without disrupting normal postsurgical haemostasis, further reductions in venous thromboembolism will come at the cost of increased bleeding," they say.

Does this mean that we have to accept that some patients will inevitably have thromboembolism after surgery? Probably. It happens even in highly selected patients who are given optimal prophylaxis within clinical trials. But this doesn't mean we can't do better. What we must eliminate, Haut and colleagues say, is the preventable harm—by which they mean thromboembolism in patients who have been given "suboptimal prophylaxis." The figures they quote show that this problem is still alarmingly common, with poor adherence to guidelines widespread in many countries.

But these authors' own experience shows what's possible. As they describe in a Quality Improvement Report just published on bmj.com (doi:10.1136/bmj.e3935) their multidisciplinary team, supported by a computerised decision support tool, markedly increased the proportion of patients getting the right prophylaxis. Mandating the tool and incorporating it into the clinician's normal workflow were essential to this success, they say.

As for serious antibiotic resistant infections, we are lucky to have the newer β lactam antibiotics, the carbapenems. But as Peter Hawkey and David Livermore report (doi:10.1136/bmj.e3236), increased use has led to the emergence of resistant bacteria carrying "carbapenemases." The authors give helpful advice on how best we can safeguard these drugs for patients whose options are otherwise running out.

With a dearth of new medicines it has never been more important to practise good medicine: proper implementation of what we know and good stewardship of what we have.

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