Half the cases of bacteraemia in hospitals in England are linked to devices

BMJ 2003; 326 doi: http://dx.doi.org/10.1136/bmj.326.7379.10 (Published 4 January 2003)
Cite this as: BMJ 2003;326:10.1

Recent Rapid Responses

Heparin bonded lines offer a solution that is difficult to implement

25 January 2003

The BMJ news report[1] that devices, particularly central venous lines, are linked to over half the cases of hospital acquired bacteraemia has long been a source of concern to clinicians in intensive care. Unfortunately, one simple, effective and low-cost intervention is not being used because of restrictions on licensing and supply. A systematic review[2] of heparin bonding (1 trial) or heparin infusion (3 trials) versus no anti-thrombotic prophylaxis for central venous lines showed a strong trend for a reduction in bacteraemia (pooled RR 0.26; 95% CI: 0.07, 1.03). Our updated searches found one subsequent trial[3] (200 children), conducted at Great Ormond Street Hospital (GOSH) without commercial funding, in which heparin bonded lines reduced the risk of bacteraemia from 33% to 4% (risk difference 29%; 19%, 39%). As heparin bonded central venous lines are not licensed for use in the UK, GOSH has been able to maintain their supply only by agreeing to take full legal responsibility should problems arise. This means that lines can be used but only on a named-patient basis with their use audited. It is therefore not surprising that a recent survey of 36 consultant and specialist trainee anaesthetists from across the south east of England found that no other trust was using heparin bonded lines.

Policy regarding heparin bonded lines undoubtedly requires more and better quality studies[4,5]. However, satisfactory alternatives are few. Heparin infusion requires staff time, additional equipment, and provides the opportunity for drug errors. In contrast, adverse effects of heparin bonded lines remain theoretical.

Although heparin bonded lines are licensed and widely used in the USA, the UK licensing authority requires further studies which the company appears to be reluctant to pursue. Focused commercial and research efforts are required to resolve this
impasse.

Reference List
1. Dobson R. Half the cases of bacteraemia in hospitals in England are linked to devices. BMJ 2003;326:10.

Competing interests: None declared

Ruth Gilbert, Director, Centre for Evidence-Based Child Health
Richard Howard and Quen Mok
Institute of Child Health & Great Ormond Street NHS Trust, 30 Guilford Street, London, WC1N 1EH

Click to like:
0 +