Effectiveness of acute postoperative pain management

Editor—Dolin and colleagues have, by means of a comprehensive review of the literature, given a quantitative indication of the success of commonly used analgesic systems. They highlight the difficult task ahead if we are to achieve the very high standards suggested by the audit commission in 1997, which recommended a target of <20% of patients having severe pain at that time, falling to <5% by 2002.

We have sought to determine the efficacy of analgesic interventions from a slightly different viewpoint. We have analyzed the results of an ongoing survey of more than 20 hospital acute pain services; each hospital utilizes standardized definitions and data collection techniques, collated in a computer program devised by one of the authors. In our survey, over a 6-month period, 8700 acute pain service 'encounters' were documented. These included 2058 epidurals, 4578 PCAs, and 263 'intramuscular' analgesia injections. The remainder consisted of spinal opiates or other regional blocks.

We define moderate to severe pain on the first postoperative day as a pain score of 2, on a 0–3 point scale for two consecutive monitoring time periods. We believe that using this definition will give some indication of the 'response' of an acute pain service.

Using our definition, 22.3% (7.5–55.9) of patients using PCAs, 18.5% (8.8–37.6%) of patients with epidurals, and 22.8% of those receiving intramuscular analgesia experienced moderate to severe pain. The intramuscular data are, however, based on the acute pain service of only five hospitals, and therefore may not be widely applicable. Most hospitals do not have the resources within acute pain to closely monitor intramuscular analgesia, and so identification and care for these patients often falls outside of the remit of acute pain services.

Overall, moderate to severe pain was reported in 20.7% of patients monitored by the acute pain service across all treatment options. Again, there was significant variation from hospital to hospital—from 7.5 to 47% of patients. Patients not routinely followed up by the acute pain service would also impact significantly on this overall figure. Nonetheless, it is clear that none of our survey hospitals are yet meeting the 5% severe pain level, though seven were below the 20% level suggested by the Audit Commission for the 1997 value.

We aim to repeat the national acute pain service audit towards the end of this year, using the same data set and computer program. We anticipate having 35 hospitals participating, which would give a better indication of acute pain practice across the UK.

Our results, together with those from Dr Dolin, again emphasize the enormity of the task we face in hitting a 5% severe pain target. The first step towards these goals must surely be to agree standard definitions and a common dataset, such as that previously published. To be of value, we believe these should carry the
Editor—We thank Drs Michel and Sanders for their comments and agree with them. Our literature review is very much aimed at trying to set some standards for the incidence of analgesic failure. The aim would then be to validate these criteria on an ongoing basis against audits done by individual hospitals or, in the case of Drs Michel and Sanders, against pooled data from a number of hospitals. As the ongoing audits show improving standards of care, then the recommended standards can be adjusted if appropriate.

We note that Michel and Sanders use a slightly unusual measure of analgesic failure in which the patient must experience moderate or severe pain on at least two consecutive monitoring time periods. It is difficult to say how exactly this relates to what is in the literature. In our review, we chose the single worst pain score in 24 h or a single retrospective pain score at the end of 24 h. Both these pain measures gave broadly similar results and on balance we felt that a single retrospective 24 h pain score may be all that is needed as a pain assessment. Measuring two consecutive pain scores does entail quite a lot more work and analysis on an ongoing basis. The different definition may explain to some extent why our incidences of analgesic failure differ from those quoted by Michel and Sanders.

I also note that the confidence intervals for the results they quote are very wide, which would suggest a huge variation in the data being collected by different hospitals. It would be interesting to know the reason for such a wide variation resulting in such wide confidence intervals.

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