

National Obstetric Anaesthesia Data for 2011-A report

Introduction

Collection of annualised block data from maternity units in the United Kingdom was commenced in 2004 with a dataset of 20 core items. Items have gradually been added to this dataset and in 2009, were expanded to 31 items, to include more data related to complications.

For the data of the year 2011 e-mail messages were sent to all lead obstetric anaesthetists of NHS maternity hospitals on 11th July 2012. As the response rate continued to be poor, the data collection period was extended and concerted campaign of reminders was launched in April 2013 with the help of regional NOAD representatives, This resulted in a marked improvement of returns from 50% to just nearly 70% over a period of 2 months.

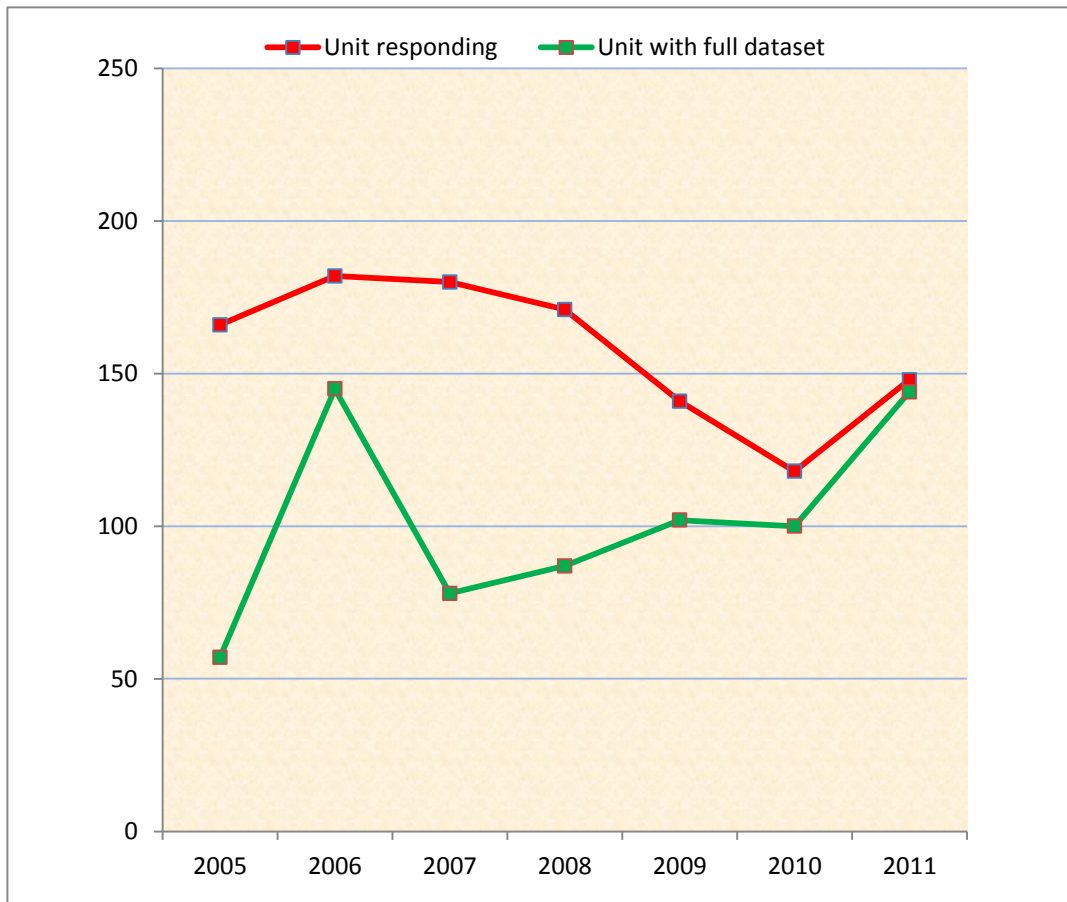


Figure 1: Response rate (%) in the last 6 years of NOAD report

Results

Data collection for the year 2011 was closed on 7th June 2013 after 118 units had responded and sent in their (partially) completed dataset. This was a response rate of 70% of all units

(Figure 1). This is significantly higher than the previous three years. These units represent 431598 mothers that delivered in 2010. One hundred hospitals were able to give the whole dataset (core anaesthetic data) (84.7% of responders).

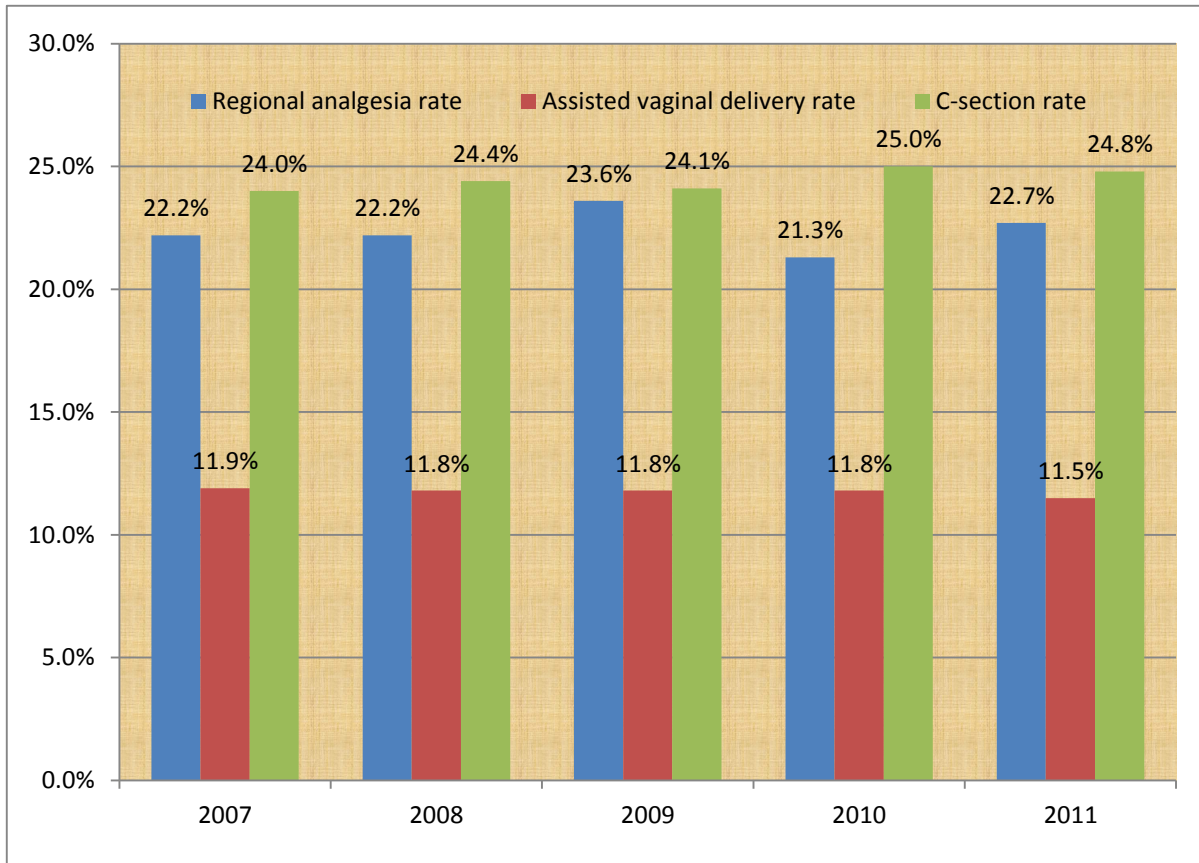
Mode of delivery.

All units sent in data on the number of actual deliveries. A total of 558256 mothers delivered in 2011 in 148 units. The smallest unit had 141 deliveries and the largest 8273. The Caesarean section rate was 24.8% (138,368 Caesarean -sections /558,256 deliveries), which is similar to last year. 4 units did not send in data related to elective Caesarean sections. The number of category 4 (elective) Caesarean sections was 54160 in the remaining units who had performed 138,368 Caesarean sections. This means that 39.1% of Caesarean sections were planned in these units.

Regional analgesia for labour

All units produced data on the number of patients that received regional analgesia for labour. The overall regional analgesia rate was 22.7% (126,749/558,256 deliveries) (Figure 2). This is similar to what was reported for the previous years. In .4 units, no regional analgesia service was offered to patients (1300, 169, 141, 1100 deliveries annually).The lowest regional analgesia rate in units that offered the service to patients was 4.1 %. The highest regional analgesia rate in a single unit was 37.6%. The latter unit performed 3311.deliveries. As in previous years, we could not establish a correlation between the rate of Caesarean deliveries and the regional analgesia rate (Figure 2).

Figure 2: Rates of regional analgesia for labour, assisted vaginal delivery and Caesarean section



We received from 141 units detailed and complete information about the initiation of analgesia (CSE –epidural – other) and maintenance (PCEA, Intermittent topups, infusion or PCEA + infusion). Epidural initiation was done in 120,023 patients (91.2%) and initiation using CSE was done in 6,554 patients (5%). Alternatives were used in 4991 cases. Intermittent top-ups were used in 47,980 patients (40%) and continuous infusions alone in 33,412 patients (27.8%). PCEA was used in 53,637 patients (32236 cases with PCEA alone; 20,401 cases with PCEA + infusion) (Figure 3). It is interesting to note that the number of units using continuous epidural infusion appears to be steadily falling and PCEA is steadily climbing.

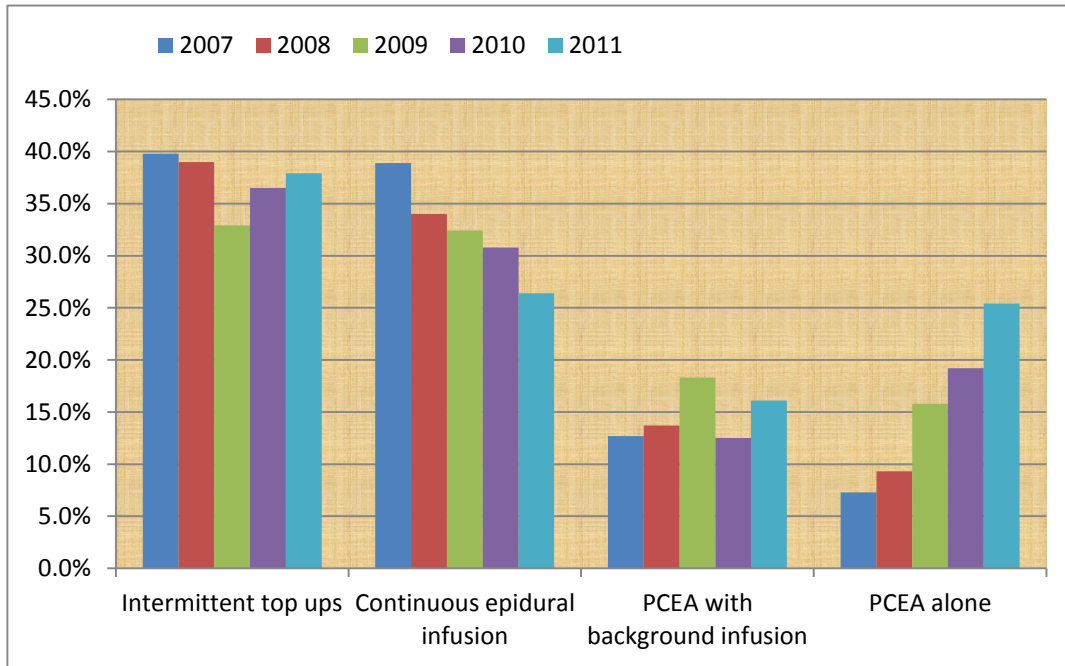


Figure 3: Maintenance of regional analgesia in labour

Anaesthesia for Caesarean section.

One hundred and forty-three units were able to give complete data on the type of anaesthesia used for Caesarean section. Most sections were performed under single shot spinal anaesthesia (81,967 or 59.2%). Epidural anaesthesia was used in 27,436 cases (19.8%) (Figure 4). Most were topped-up epidurals (26,053). A small minority, 1,383 cases, were de novo epidural anaesthetics. CSE accounted for 11,857 cases (8.6%), of which 1,240 cases were top-up of previously sited CSE and 10,617 were de-novo CSE's (Figure 4).

From 138,368 Caesarean sections performed in 2011 in these units, 11278 were performed under general anaesthesia (GA rate of 8.2%). De novo general anaesthesia for Caesarean section was administered in 6,495 patients. Conversion to GA was done in 4,783 cases. Among the GA sections, there appears to a steady proportion of GA conversions during Caesarean Sections over the last few years. In addition, the overall number of Caesarean sections under GA appears to have reduced when compared to previous years. (Figure 5, 6).

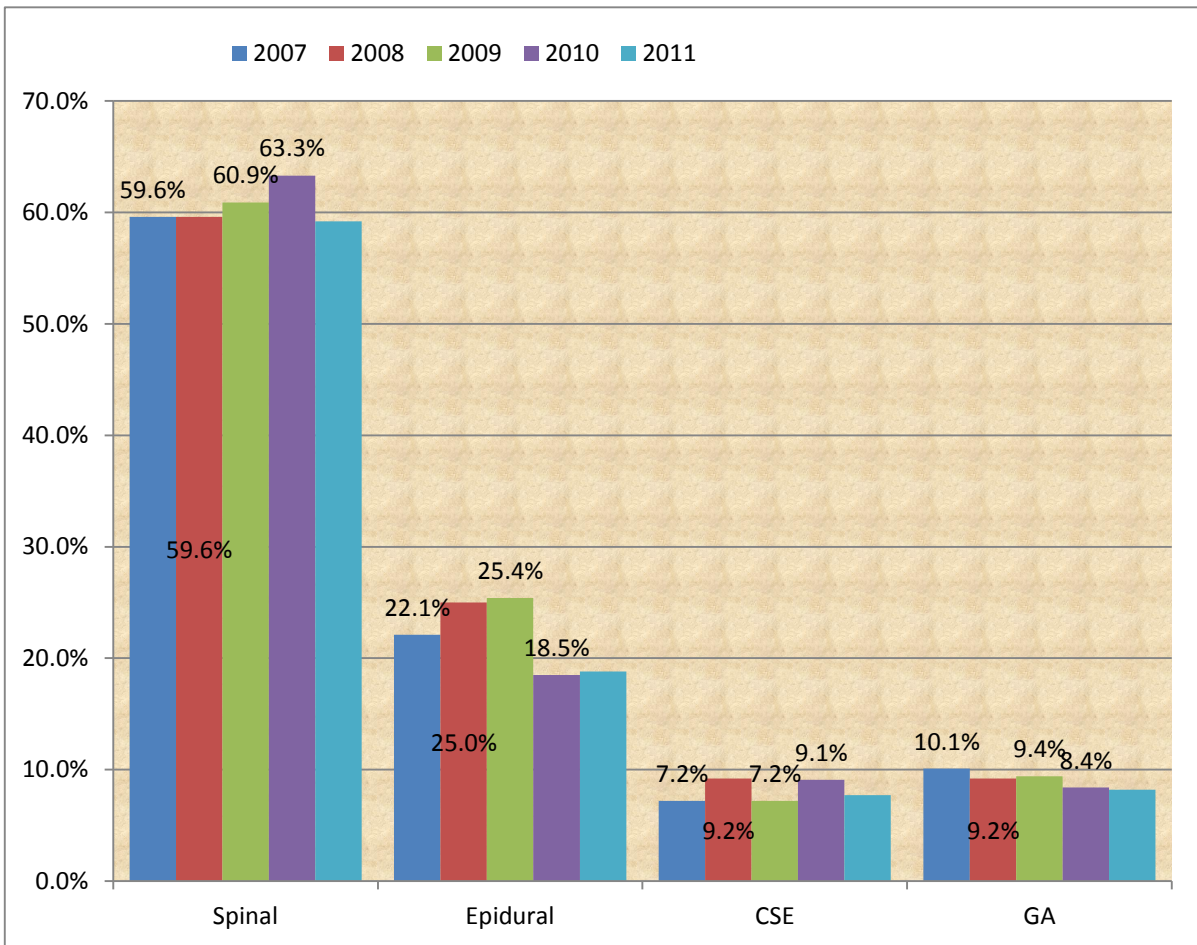


Figure 4: Anaesthesia for Caesarian Sections

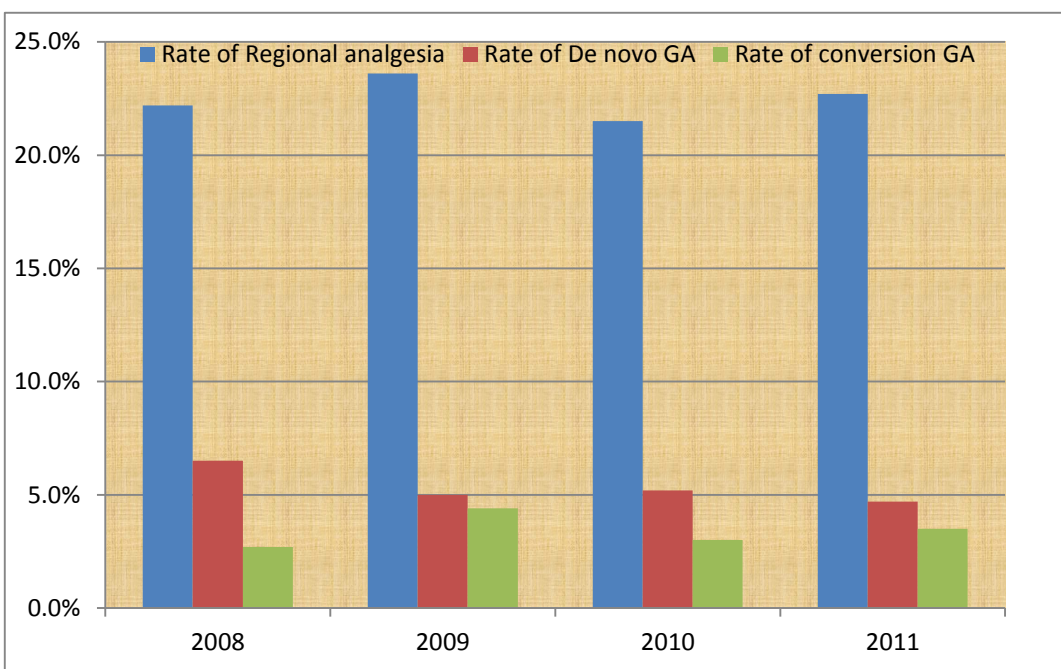


Figure 5: Epidural analgesia rate, denova GA rate and GA conversion rate

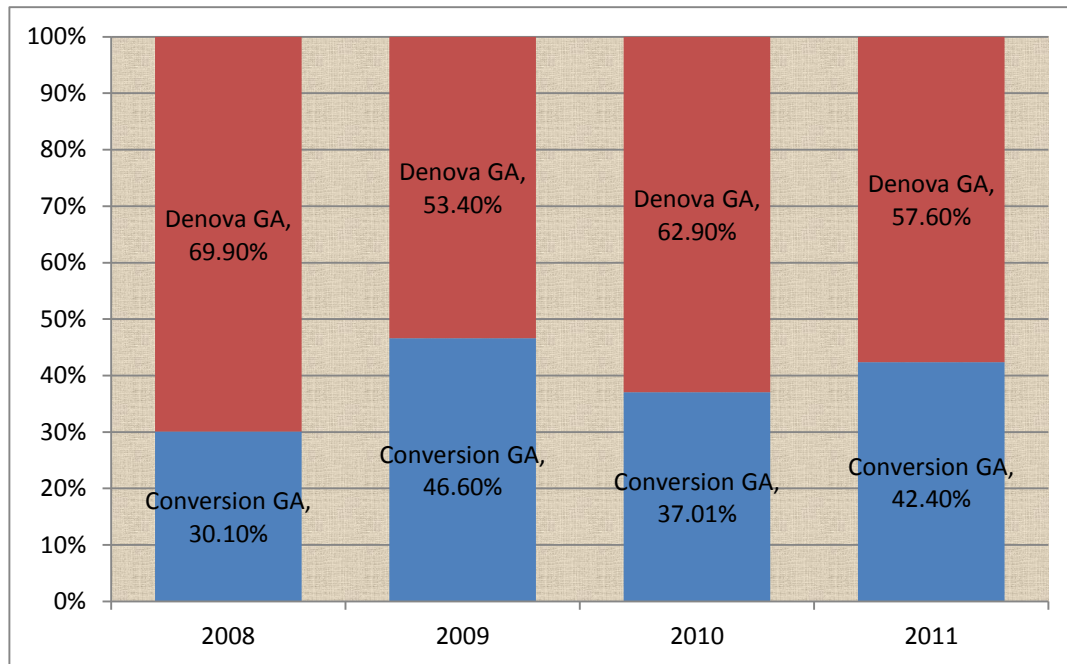


Figure 6: Ceasarean Sections under GA

Complications.

970 accidental dural punctures were reported (ADP-rate of 1.2%; 970/81,219), and 751 blood patches were performed. The ADP rate appears to be no different from that collected in previous years. These figures are in line with reported rates in the literature. There were reports of 38 cases of total spinal anaesthesia (1:10,000 cases of regional analgesia and anaesthesia including all unit responses) and four cases of lipid rescue used although no cases of local anaesthetics toxicity were reported. There was one case of GA in which the airway could not be secured and ventilation could not be achieved. Twenty cases were reported in which the trachea could not be intubated. (1:560 cases of GA). Three hundred and eight-six patients were admitted to HDU and 433 patients were admitted to ICU.

Conclusion and future goals

The response rate has risen for the first time in four years and we hope that this positive trend will be maintained. As the data collection becomes more contemporaneous, we believe that more units will find it easier to gather data and find the results more relevant to their practice.

Data appear to be relatively unchanged over the last few years. There appears to be a decrease in the number of units using continuous epidural infusion as their sole means of providing analgesia. The number of units providing PCEA alone as the method of analgesia is rising and the trend of PCEA with or without background infusion is likely to rise over the next few years.

There appears to be a steady rise in the number of conversions to GA among Ceasarean sections since 2006, despite a small decrease in 2010. However the overall GA section rate is steady with the rate currently at around 8%. It will be interesting to observe if this trend is maintained in the following years.

On behalf of the OAA we would like to thank all the lead clinicians and NOAD representatives who provided the data.

DR M PURVA

Chair

NOAD subcommittee

OAA

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