Medicine evidence-based guidelines (3rd ed.). *Reg Anesth Pain Med* 2010;**35**:64–101.
3. Leffert L, Butwick A, Carvalho B, et al. The Society for Obstetric Anesthesia and Perinatology Consensus Statement on the anesthetic management of pregnant and postpartum women receiving thromboprophylaxis or higher dose anticoagulants. *Anesth Analg* 2018;**126**:928–44.
4. Snijder CA, Cornette JM, Hop WC, Kruip MJ, Duvekot JJ. Thrombophylaxis and bleeding complications after cesarean section. *Acta Obstet Gynecol Scand* 2012;**91**:560–5.
5. Product monograph: Fraxiparine. Aspen Pharmacare Canada. Toronto, Canada. July 11, 2017. Available at: https://pdf.hres.ca/dpd_pm/00040204. Accessed August, 2018.

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Collecting data for quality improvement in obstetric anaesthesia

The recent editorial on quality improvement in obstetric anaesthesia highlighted the importance of local data collection by obstetric anaesthetists.[1] We have undertaken a national survey of lead obstetric anaesthetists in the UK to find out what data obstetric anaesthetists routinely collect, and how it is collated and analysed.

The 13-question survey was approved by the Obstetric Anaesthetists' Association (OAA) and hosted on the OAA online survey system. The response rate was 51% (98/191), with the respondents representing a variety of maternity hospital sizes: 29% of respondents worked in hospitals with <3000 deliveries, 39% came from hospitals with 3000–5000 deliveries and 31% from hospitals with >5000 deliveries.

Quality data on obstetric anaesthesia were collected by 85% of the respondent hospitals, of which only 54% routinely analysed their data. Twenty-nine respondent hospitals cited insufficient resources for data collection as the main reason for failure to analyse data and only 14/61 (23%) of the respondents reported that they received support from a hospital data analyst. In the majority of hospitals (46/61, 77%), an obstetric anaesthetist undertook the data analysis, some reporting that this workload was difficult to manage.

A variety of systems was used to collect data, including paper systems. Some hospitals opted to use a combination of systems and 39% used their maternity data system to capture anaesthetic data. For hospitals that routinely collected data, the most frequently used datasets are shown in Table 1.

With regards to sharing analysed data, the results of data analysis were reported at a hospital, regional or national level by only 4/83 (5%) of respondents. The remainder of those who reported their data did so only at a departmental level. Regular reporting of data (monthly or yearly) was done by 46 respondent hospitals. The most common approach was 'reactive' analysis; that is, when potential problems were suspected, for example in response to a cluster of complications such as post-dural puncture headaches.

Table 1 Dataset items collected by hospitals that routinely collect obstetric anaesthetic data

Dataset item	Percentage of respondent hospitals
Mode of anaesthesia for caesarean section	58%
Complications of anaesthesia	53%
Patient satisfaction	47%
Effectiveness of postoperative analgesia	37%
Postnatal follow-up rate	34%
Labour epidural resite rate	34%
Difficult intubation rate	31%
Data related to obstetric critical care admissions	31%
Labour epidural analgesia response time	24%

Despite the difficulties of data collection, its analysis and reporting, 97% of respondents were enthusiastic about benchmarking their local data against national peer data. With regards to the type of data that they considered should be used for benchmarking, 84% preferred service-outcome measures. Whilst the remainder preferred service-provision (structure and process) data, many commented that they would want to be able to compare both service-provision and outcome data, an approach supported by the quality improvement literature.[2]

It is evident from this survey that there is enthusiasm to collect and analyse quality improvement data for obstetric anaesthesia and for obstetric anaesthetists to be able to benchmark against services in other units. This enthusiasm is tempered by the difficulties faced in collecting data and the lack of support to provide analysis of the data.

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References

1. Wikner M, Bamber J. Quality improvement in obstetric anaesthesia. *Int J Obstet Anaesth* 2018;**35**:1–3.
2. Agency for Healthcare Research and Quality 2018. Available at: https://www.ahrq.gov/professionals/quality-patient-safety/talkingquality/create/types.html. Accessed September 7, 2018.

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The erector spinae plane block for radicular pain during pregnancy

Radicular pain arising from the lumbar, and occasionally cervical, level is not unusual during pregnancy and may commonly be caused by the physiological stresses of pregnancy which worsen symptoms of radiculopathy. Diagnostic and therapeutic challenges occur in this population, notably relating to the choice of imaging and the dichotomy between medical and surgical management.[1] Magnetic resonance imaging (MRI) is the imaging method of choice to confirm radicular involvement, particularly in patients with ongoing neurologic deficit.[1]

Medical management of radicular pain is the cornerstone of treatment and includes physical therapy focusing on optimal posture and the application of heat locally.[2,3] Non-steroidal anti-inflammatory drugs and neuromodulators such as pregabalin are commonly prescribed for acute radicular pain crises but are troublesome in pregnancy.[1,4,5] Epidural steroid injection is part of the medical management for neck pain[1] and to minimize neurological risk the use of fluoroscopy is considered mandatory.[6] This is not possible, however, during pregnancy due to exposure to ionizing radiation.

If symptoms remain refractory to medical management, surgical intervention is an option. The timing of surgery is an issue and it is usually recommended that it be performed after the first trimester. In the third trimester maintenance of placental perfusion, avoidance of aortocaval compression and maternal hypotension are vital.[7] Pregnancy may limit the therapeutic options for treating radicular pain, leading to failure of treatment and exposing the patient to unnecessary surgical interventions.

The erector spinae plane (ESP) block has recently been described in the management of thoracic neuropathic pain[8] and acute pain after surgery.[9] Dermatomal spread of the block may extend beyond the application level. Its performance with ultrasound guidance makes it suitable for use in pregnant women. We report the use of an ESP block for cervical radicular pain during pregnancy. A 42-year-old woman at 13 weeks' gestation was referred to our pain clinic with pain in her neck and left arm, associated with episodes of stabbing pain with burning symptoms in the lateral aspect of her left shoulder and the interscapular area. She denied power loss and no "red flag" symptoms or signs were noted. The pain was always present. She received paracetamol and physical therapy but could not tolerate the latter and improvement was minimal. Electromyography and nerve conduction studies showed acute C7 nerve root involvement.

Physical examination revealed cervical muscle spasm with decreased movement and a positive Spurling's test. Tricipital reflex and power were normal but light brush allodynia and pinprick hyperalgesia were present in the described dermatome.

After failure of conservative therapy and extensive discussion with the woman, an ESP block was performed. The patient was placed in the left lateral decubitus position and after instituting standard monitoring

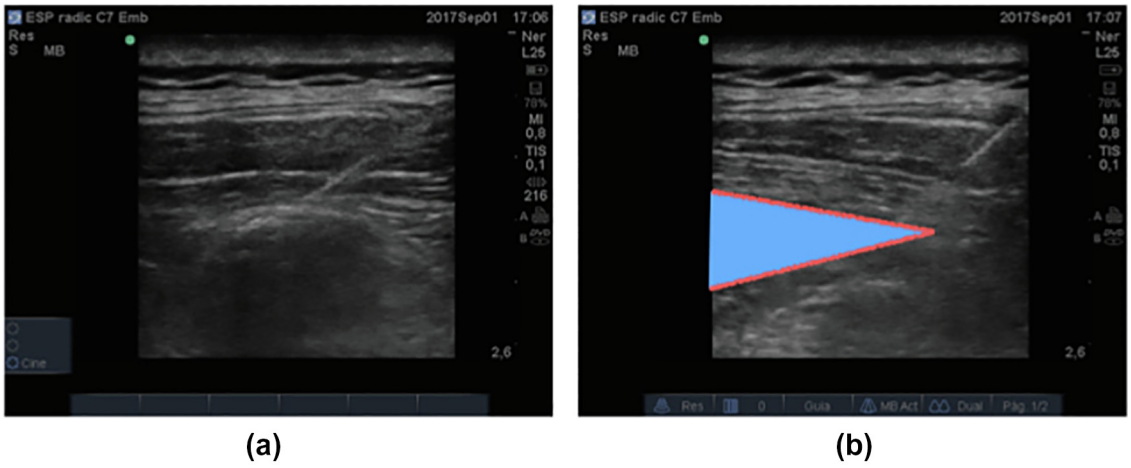

Fig. 1 (a) Needle on the top of transverse process. (b) Hydrodissection (blue triangle) under the erector spinae muscles (ESM). Notice the two other muscle layers above the ESM corresponding to the trapezius and the rhomboid muscle. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article)