

Intrathecal morphine for caesarean delivery: a UK survey of practice

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Due to a recent national shortage of diamorphine (DM), intrathecal morphine (ITM) has been used as an alternative long-acting opioid for caesarean delivery (CD). ITM is known to have dose-dependent side effects (SEs) [1]. A recent audit of practice at our unit revealed an increased incidence of SEs with ITM [2], with the introduction of an additional prophylactic antiemetic as a result.



Aims

We sought to determine the extent of ITM adoption nationally, user satisfaction, the incidence and management of side effects. Our aim is to inform local practice and potentially a national guideline development.

Method

We undertook an OAA-approved national survey of the use of intrathecal opioids for planned CD; 115 UK lead obstetric anaesthetists were invited to complete it online from February to May 2022. Data collection was managed via the OAA. Questions explored the use of ITM, observed SEs, preferred treatment, post-operative monitoring and anaesthetist satisfaction.

References:
[1] Sultan P, Halpern SH, Pushpanathan E, Patel S, Carvalho B. The Effect of Intrathecal Morphine Dose on Outcomes After Elective Cesarean Delivery: A Meta-Analysis. Anesth Analg. 2016 Jul;123(1):154-64
[2] P.42 Quality of recovery following intrathecal morphine versus diamorphine for elective caesarean delivery at a tertiary centre. Ciechanowicz, S; Oyewole, M; Neall, G et al. International Journal of Obstetric Anesthesia; 2021, 46
[3] OAA commentary on alternatives to intrathecal and epidural diamorphine for caesarean section analgesia. (www.oaa-anaes.ac.uk/ui/content/content.aspx?ID=4717)

Results

47 of 115 leads responded to the survey (41%). Just over half of responding units (24/47) use ITM (figure 1). Reasons for switch to ITM included supply issues (21/24, 88%) and perceived better analgesia (1/24, 4%). 58% switched within a year of the survey. 4 units had been using ITM for over 5 years. Doses used typically followed the OAA statement [3] and are detailed in figure 2.

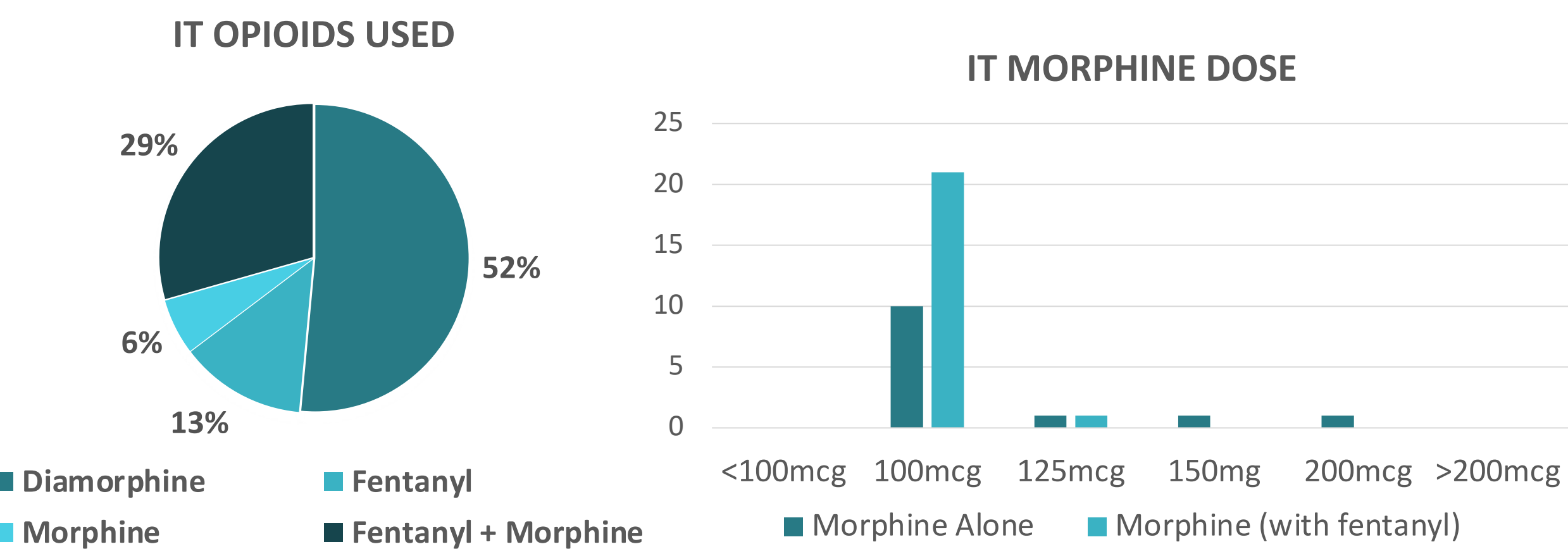


Figure 1

Figure 2

Commonly reported SEs were nausea and vomiting and pruritus. Sedation, respiratory depression and urinary retention were rarely observed (figure 3).

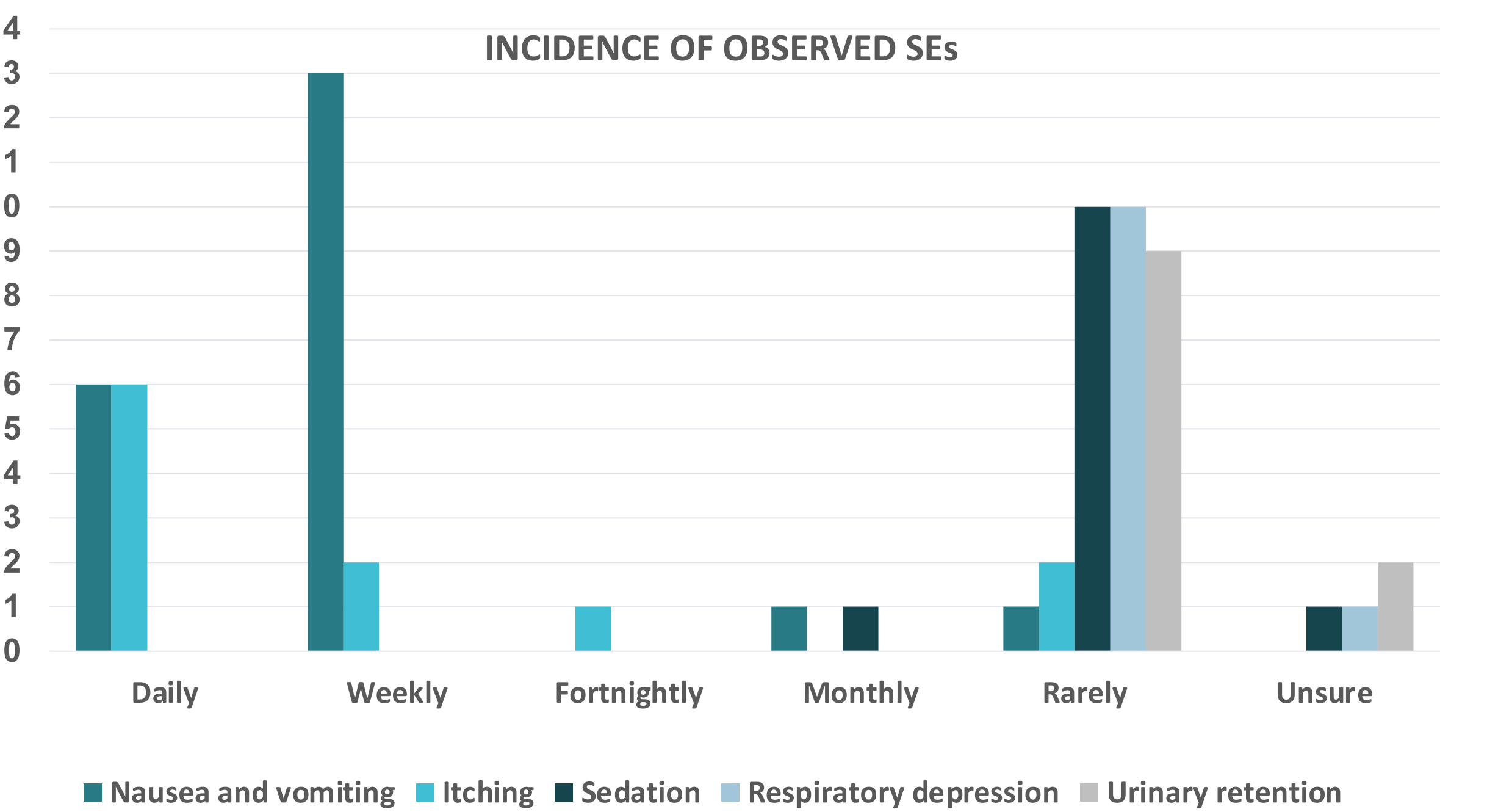


Figure 3

31 units give routine antiemetics intra-operatively, a combination of ondansetron, dexamethasone and cyclizine (figure 4). 25 units routinely prescribe prophylaxis for pruritus: 5 units use 5-HT antagonists + chlorphenamine (figure 5). Responders reported good overall satisfaction with their prophylaxis regimens. One unit does not routinely prescribe intra-operative antiemetics as they do ‘not deem them necessary’.

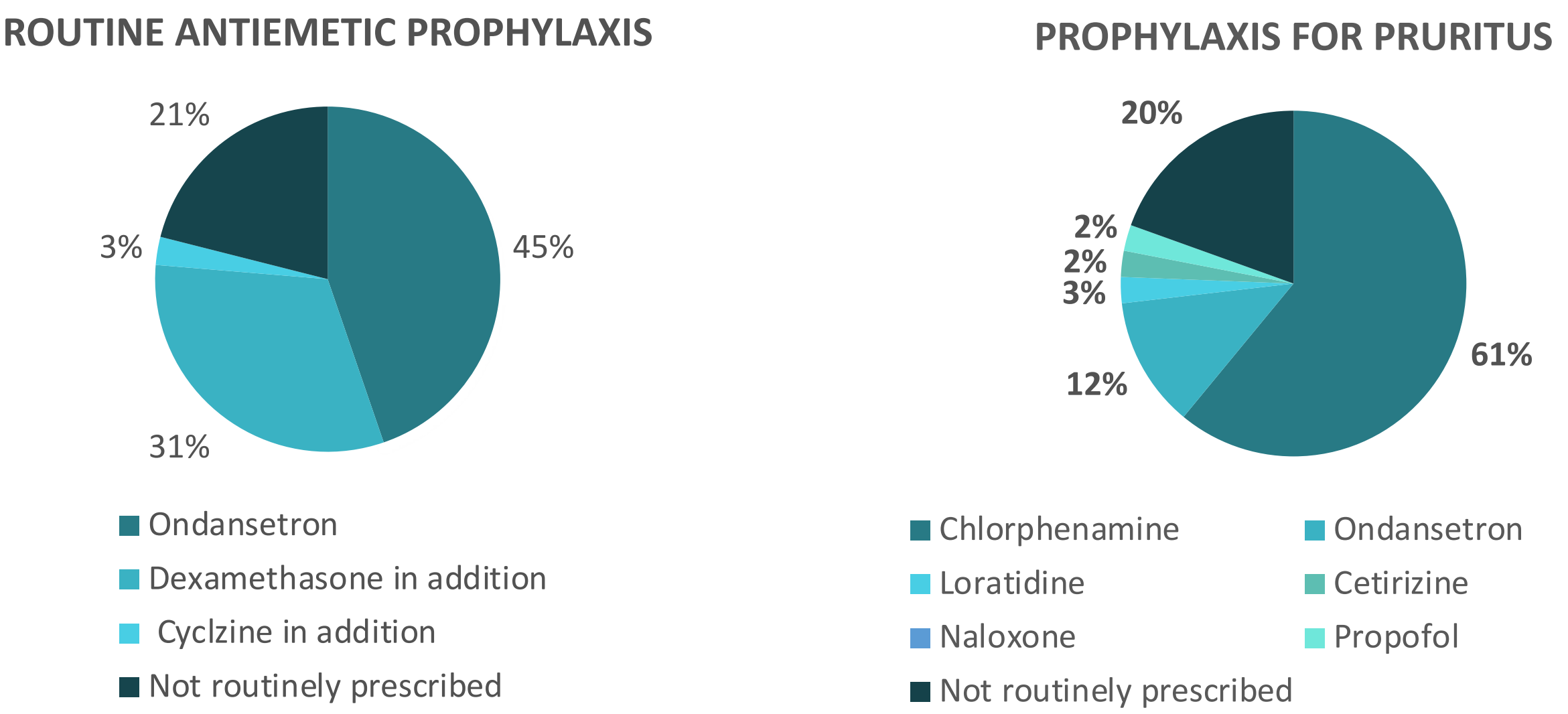


Figure 4

Figure 5

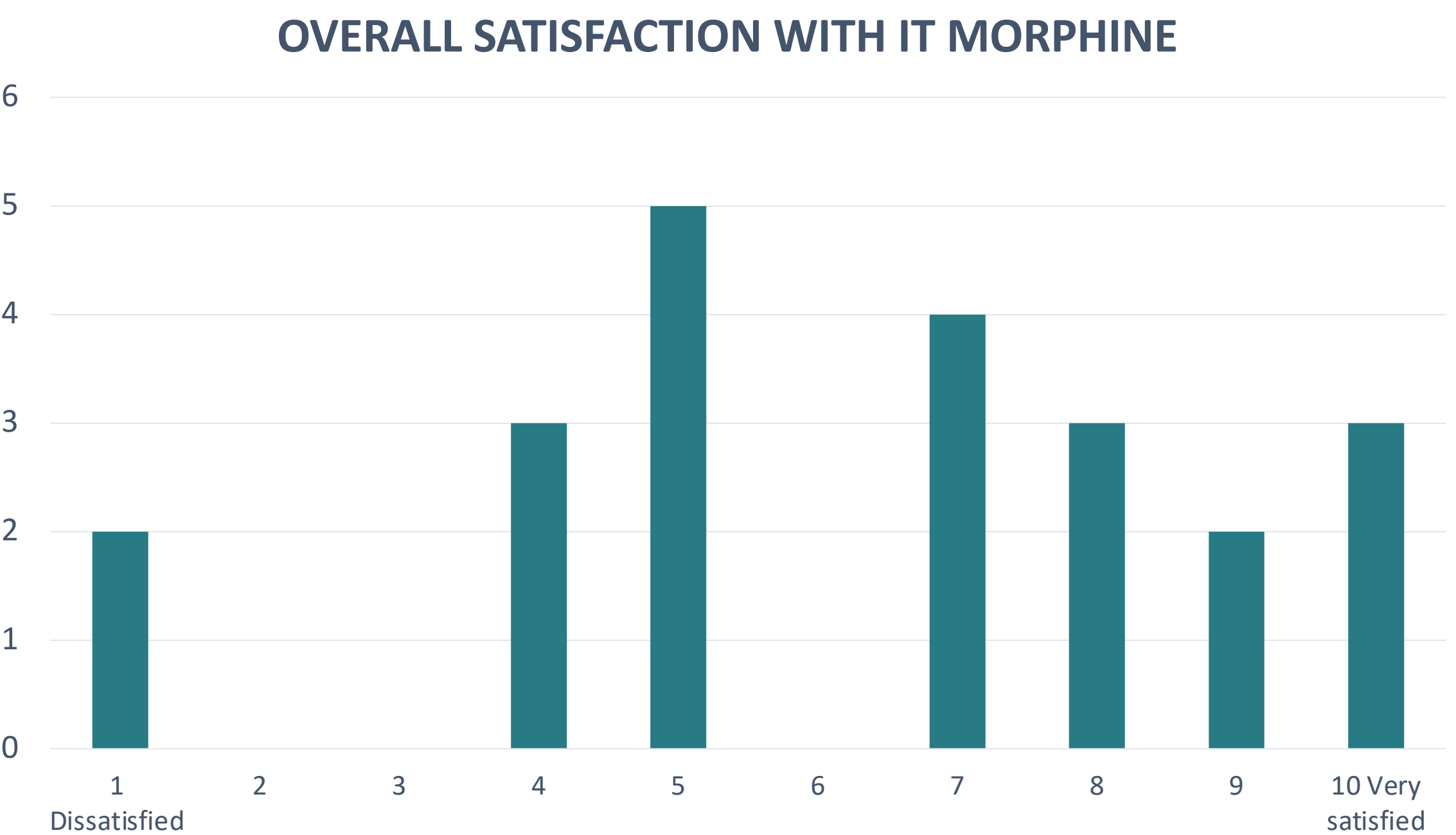
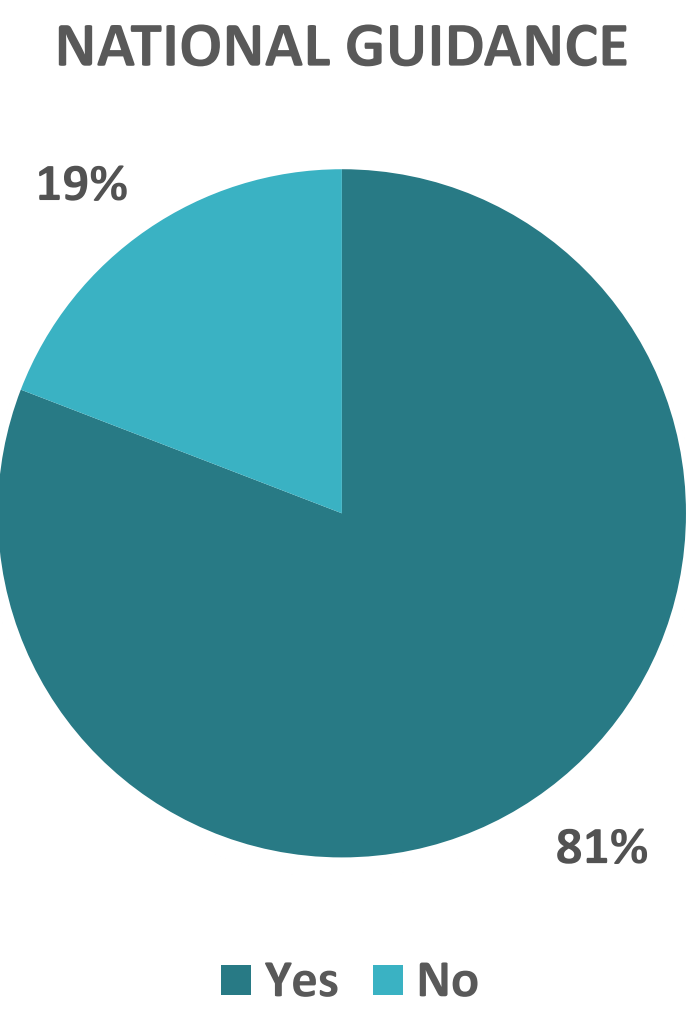


Figure 6

There was variation in the monitoring women receive after ITM. 18/24 units follow the OAA statement [3].



81% responding units think national guidance on the use of ITM in planned caesarean deliveries (dose, mitigation of side-effects and post-operative monitoring) would be beneficial, due to infrequent or intermittent use.

Discussion

ITM use has increased nationally following diamorphine shortages. Dissatisfaction with ITM for planned caesarean deliveries (Figure 6) was largely due to:

- increased SEs ;
- delayed recovery and discharge (3/24 state ITM has impacted enhanced recovery pathway);
- greater margin for drug errors (10-fold if 10mg/ml vial used inadvertently); and
- increased monitoring requirements.

In addition:

- one unit reported ‘multiple’ dosing errors since adoption. There is also concern that it is slower to draw up, and wasteful when combined with fentanyl;
- some units have increased routine prophylactic anti-emetics use as a result of SEs, and multiple responders commented that it causes a troublesome itch;
- 81% would be in favour of national guidance, although further prospective studies would be required to inform this; and
- limitations of the survey included low response rate and incompatibility of survey with mobile phones leading to incomplete data.