IMPROVING REVIEW AND FOLLOW-UP OF POST-DURAL PUNCTURE HEADACHES AT NOTTINGHAM UNIVERSITY HOSPITALS

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Introduction

Post-dural puncture headache (PDPH) is a common complication of neuraxial techniques and can result in significant morbidity in the postnatal period. The Obstetric Anaesthetists' Association (OAA) publishes guidelines on the treatment of PDPH (see table 1).

OAA PDPH auditable standards[1]
Daily review until discharge from hospital or resolution of symptoms
Information on "red-flag" symptoms provided
Notification to GP when PDPH diagnosed
Review within four hours of epidural blood patch (EBP)
Next day review of EBP if same day discharge

Table 1: OAA auditable standards for PDPH

Aim

To audit our current practice in relation to these guidelines and implement changes to improve practice.

Methods

An initial audit was conducted from November 2019 to November 2020. Data was collected through notes review of all patients with known accidental dural puncture (ADP) or suspected PDPH. Changes to practice were made following the results of this audit with multidisciplinary consultation, which included:

- Introduction of formal anaesthetic follow-up for all patients
- Introduction of an epidural proforma
- Improved information on PDPH follow-up for anaesthetic trainees at induction

Performance was re-audited from June 2021 to December 2021. Approval was gained from the trust audit and clinical effectiveness department.

Results

There were 23 women reviewed with suspected PDPH during the initial audit (nine with recognised ADP), and 18 during the re-audit period (eight with recognised ADP). Seven EBPs were performed in the initial audit and eight during the re-audit. The results are summarised in figure 1 and table 2. We also analysed data from the subgroup of patients with recognised ADP at insertion of epidural (see figure 2).

Audit Criteria (all patients)	Audit	Re-audit
Review within four hours of EBP	**43%** (3/7)	**13%** (1/8)
Review next day following EBP	**57%** (4/7)	**75%** (6/8)

Table 2: Results for epidural blood patch (EBP) follow-up



Figure 1: Results for all suspected PDPH and known ADP included in audit compared to re-audit



Figure 2: Results for known ADP included in audit compared to re-audit

Discussion

The implementation of changes to practice resulted in improved safety net advice and communication to the GP on discharge. Daily review of patients improved significantly for those with a known ADP, however not for all patients with a suspected PDPH. There are improvements yet to be made in: ensuring future follow-up is offered; daily review of all patients with PDPH; and review of EBPs (especially within four hours). A limitation of this study is that data collection relies on clear documentation. Improvements we have identified to ensure improved follow-up and improved documentation are:

- Introduction of an anaesthetic whiteboard to identify patients currently under follow-up
- Introduction of a PDPH proforma for documentation of reviews and EBPs

Key messages

- Adherence to standards improved following the introduction of structured PDPH guidance and follow-up pathways
- There are potential improvements to be made in ensuring daily follow-up of patients and structured documentation of reviews

References: 1. Obstetric Anaesthetists' Association. Treatment of obstetric post-dural puncture headache. December 2018. https://www.oaa-anaes.ac.uk/assets/_managed/cms/files/Guidelines/New%20PDPH%20Guidelines.pdf