Labour epidural checklist - A step towards safety

Dear Editor,

Medical errors are often secondary to human errors, and many of them are preventable.[1] Patient safety checklist entails a list of steps that must be completed prior to proceeding to the next step to avoid missing critical steps during surgery or procedure. It identifies the potential errors that can be addressed to provide an improved organizational safety culture. The World Health Organization (WHO) introduced the safety checklist for surgical practice in the UK after the 'Safe Surgery Saves Lives' campaign in 2008, that is now being modified and used worldwide.[2]

Speciality-specific checklists are the need of the day to provide standardized care and team-based work.[3,4] Such checklists are in regular use prior to placement of any neuraxial block (epidural, combined spinal–epidural) for labour analgesia in the USA and the UK. However, to best of our knowledge, it is not yet a routine in India. Complexity of neuraxial block, multidisciplinary team management and higher-risk parturients increases the potential for error; therefore, the need for a safety checklist has become more apparent. It is the need of the hour to formulate local protocols at the institutional level

which can later proceed towards development of guidelines by the speciality concerned associations. These guidelines though are not legal documents but can be considered as standard of care and thus, prove to be saviours for medical doctors in medicolegal cases of dispute.

Labour being a stressful period for the parturient with the stress often being reflected in the environment surrounding the delivery units, there is a sense of urgency to provide pain relief. An anxious mother is intolerant to delays. Haste increases the chances of error many fold, and often vital steps of the procedures get missed. This was evidenced in the review of labour epidural 'Time Out' checklist.[5] Hand washing and completion of epidural consent form were often performed after being prompted by the checklist. Flinspach *et al*.[6] demonstrated that standard monitoring and appropriate aseptic techniques were only performed in 42% and 49% of the parturients receiving epidural respectively.

Table 1: Labour epidural checklist

	Completed
A. Sign-in Section *(pre-procedural tasks completed by the nurse, prior to calling the anaesthesiologist for epidural)*	
1. Parturient shifted to the delivery suite	☐
2. IV access and commencement of IV fluids	☐
3. Epidural information card shown to parturient	☐
4. Epidural cart checked	☐
5. Working infusion pump present	☐
6. Sterile peridural equipment and LA drugs	☐
7. Resuscitation equipment/drugs	☐
8. Monitoring of vital signs of parturient and FHS	☐
B. Time Out Section *(read out loudly by a nurse before the invasive part of the procedure is performed by the anaesthesiologist)*	
1. 'SBAR', handover	☐
2. Upon arrival of anaesthesiologists	
a. Self-introduction of the staff	☐
b. Patient identity	☐
c. Procedure confirmation	☐
3. Pre-procedural checks (by anaesthesiologists)	
a. Check for allergies	☐
b. Rule out contraindications	☐
i. Cardiovascular instability	☐
ii. Tingling/numbness in extremities	☐
iii. Presence of anticoagulation	☐
iv. Infection at site of injection	☐
c. Consent taken	☐
d. Platelet count checked	
4. Sterile working condition	
a. Hygienic hand disinfection	☐
b. Fully scrubbed, wearing cap, gown, mask and sterile gloves	☐
c. Sterile cleaning of the insertion site	☐
C. Sign Out Section *(completed by the anaesthesiologists before anyone leaves the procedural area)*	
1. Secure fixing of epidural catheter	☐
2. Stable vital signs	☐
3. Level of block	☐
4. Labelling of infusion (drug name, concentration)	☐
5. Commencement of epidural infusion	☐
6. FHS monitoring	☐
7. Inadvertent dural puncture	☐
8. Documentation completed	☐
9. Safe disposal of all sharps	☐
Signature (Anaesthesiologist), Date & Time	Signature (Nurse) Date & Time

Therefore, we propose a simple, composite labour epidural checklist (LEC) highlighting the key steps to be introduced and made a routine practice in delivery units in India prior to placement of a neuraxial block [Table 1].

'Sign In' section ensures presence of resuscitation facilities which is mandatory prior to neuraxial block. It allows efficient use of anaesthesiologist's time in busy delivery units. Knowledge about the parturient's gravida, progress of labour and risk grade is to be given by the nurse to the anaesthesiologist at the time of Situation-Background- Assessment-Recommendation (SBAR) handover for proper formulation of labour analgesia plan. Pre-procedural checks and sterile working conditions are ensured in 'Time Out' section. Finally, after the procedure, 'Sign Out' section ensures complete documentation along with contact details of attending anaesthesiologist.

Checklist can never be comprehensive, as a balance between the number of items on checklist to the available time for its completion is to be considered. Training of the team members to appropriately use checklists helps to raise safety concerns and eliminates the dependence on human memory. Audit of the LEC should be done to assess its impact on the parturient safety. Utility of checklist would be based on the number of times the 'care plan' of the parturient gets changed. The modifications and revisions as well as avoidance of near-miss situations would establish their high level of utility. Even, in medicolegal cases, the LEC would play a vital role by ensuring proper documentation of institutional protocol that is referred to by court of law. At times, these checklists may seem 'too cumbersome' or 'time-consuming', but structured communication processes and a complete focus on the procedure by following steps of LEC will definitely improve parturient safety.

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Conflicts of interest

There are no conflicts of interest.

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