Obstetric Pain

What is obstetric pain?
Pain related to childbirth may present during pregnancy, during labor when more than 95% of women report pain, occasionally during Caesarean section (CS) if there is a poor quality nerve block or prolonged surgery and after delivery when more than 70% of mothers report acute or chronic pain.

Labor pain as a model of acute pain
The pain of labor has been described as a clinical tool, or model, for studying acute pain (1). The majority of women report pain during labor but pain intensity is of variable severity. Major determinants of pain intensity are:

- Parity

For example, when pain intensity during labor was measured using a unidimensional score (i.e. mild, moderate and severe), 60% of nulliparous and 45% of multiparous women described pain as severe.

- Back pain in pregnancy
- Antenatal preparation
- Upright posture during labor

When pain severity in labor was compared with that measured during other pain conditions using the multidimensional McGill Pain Questionnaire score (MPQ) (1), the highest score was recorded from nulliparous women during labor followed by (in ranked order):

- Labor pain in nulliparous women who had antenatal classes to prepare for labor pain
- Labor pain in multiparous women
- Chronic back pain
- Cancer pain
- Toothache
- Pain from a fracture

Pain after delivery
Abdominal pain is a frequent symptom in women after vaginal delivery (2). A pain intensity of ‘moderate’ and ‘severe’ is twice as frequent in multiparous (58%) than nulliparous (30%) women. It is exacerbated by breast feeding in most women (96% nulliparous and 81% multiparous). However, pain relief is obtained from standard therapies in only half of these women. The abdominal pain has a temporal relation with uterine contractions and significantly increases in severity with parity and with the duration of the uterine contraction (3). These studies have thus identified women who experience pain at a time where adequate analgesia is lacking.

Psychosocial influences
Childbirth elicits a wide range of emotions, expectations and experiences (4), suggesting that psychosocial factors play an important role. For example, one contributing factor to the increase in CS rates is thought to be mother’s fear of childbirth (5). Fear and anxiety are significant influences on pain experiences, which is one reason why mother’s are accompanied by a ‘significant’ other person during childbirth. Psychosocial factors are also important during CS. For example, one study in the context of elective CS found that mother’s fears were maximal at time of her nerve block, and that psychosocial factors, including negative expectations, perceived lack of control over analgesics, fear during CS and her partner’s fear, predicted postnatal pain intensity (6). Obstetric pain is therefore not only related to the physical process of childbirth but also to psychosocial factors that are operating at the time.

The evidence basis for pain management during labor
The COCHRANE evidence based reports have researched factors that may influence pain in labor:

(a) Continuous support from a partner or caregiver can reduce the frequency of use of epidural analgesia and the amount of other analgesia administered to a mother (7)
(b) Water immersion during labor reduces pain intensity and analgesic use (8)
(c) Complementary and alternative therapies such as self-hypnosis and acupuncture decrease the amount of pain relief required during labor (9).

(d) Epidural analgesia compared with no epidural analgesia or no pain relief provides better pain relief and maternal satisfaction with no increased risk for CS, fetal depression or long term backache. The studies reported do not include the low dose drug mixtures used in practice today so the findings of an increased instrumental delivery are yet to be confirmed (10).

(e) Adoption of the upright position in the second stage of labor can reduce the amount of severe pain experienced (11).

(f) Combined spinal epidural analgesia when used in labor induces pain relief about 5 minutes faster than epidural analgesia but it causes more pruritis (12).

(g) Opioids given intramuscularly for pain relief during labor have not been found to be effective (13).

References