## Don't Always Blame the Block

## Dania Becker

(dania.becker@nhs.net)

## Maria Paz Sebastian

While regional anesthetics are often blamed for various complications, it is important to note that many of these complications can occur regardless of the administration of regional anesthetics



Complication



Evidence



**Risk Factors** 

01

Post-Operative Urinary Retention (POUR) There was no significant difference in POUR rates between patient-controlled analgesia and spinal anaesthesia. (1)

age, sex, comorbidites (e.g diabetes) and surgery type (8)



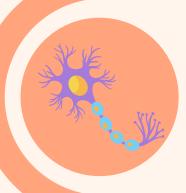
Delayed Diagnosis of Compartment Syndrome Lower concentration local anesthetic nerve blocks, without adjuncts, do not cause diagnostic delays if surveillance is effective. (2) male gender, long bone fractures, coagulopathies (9)

03



Postpartum Back Pain There is no correlation between postpartum back pain and the type of anesthesia. (3) pre-pregnancy back pain, depression & heavy workload during pregnancy, high BMI (10)

04



Nerve Injury

Incidence of permanent neurological symptoms postoperative after peripheral nerve block is estimated 1/5000 (4)

vs 1/1000 after general anaesthesia. (5)

type of surgery, prolong
tourniquet time, co-morbidities
(e.g diabetes), male gender,
elderly, positioning during
surgery (11)

05



Falls due to muscle weakness

- Single shot lumbar plexus block (including femoral nerve) does NOT significantly increase fall risk in major orthopaedic surgery patients.(6)
- Tourniquet use in total knee replacement reduces quadriceps function for the initial 6 months after surgery (7).

older age, lower limb operation, medications, history of falls (12)

## Reference.

1) A systematic review and meta-analysis of post-operative urinary retention with anaesthetic and analgesic modalities, Journal of Clinical Anesthesia, Volume 72,2021, 2) Regional analgesia for lower leg trauma and the risk of acute compartment syndrome. Anaesthesia, 76: 1518-1525.

3) Epidural versus non-epidural or no analgesia in labour. Cochrane Database Syst. Rev. 2011, 12CD000331

4)Lam KK, et al. Reg Anesth Pain Med 2020;0:1–10.
5)The first Sprint National Anaesthesia Project (SNAP-1) Study. Br J Anaesth 2016 (https://academic.oup.com/bja/article/117/6/758/2671124).

6)Br J Anaesth. 2013 Apr;110(4):518-28.

7)Knee Surg Relat Res 2014;26(4):207-213
8)Postoperative Urinary Retention. 2022 Jul 4. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. PMID: 31751034.

9)compartment Syndrome. [Updated 2023 Jan 16]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK448124/10)Risk factors for pelvic girdle pain postpartum and pregnancy related low back pain postpartum; a systematic review and meta-analysis, Musculoskeletal Science and Practice, Volume 48,2020. 11)Perioperative peripheral nerve injuries: a retrospective study of 380,680 cases during a 10-year period at a single institution. Anesthesiology. 2009 Sep;111(3):490-7 12)Risk factors for falls in patients with total hip arthroplasty and total knee arthroplasty: a systematic review and meta-analysis. Osteoarthritis Cartilage. 2019 Jul;27(7):979-993