



“From the Trough”

Perioperative Interest Group Notes

Based on Cases discussed at the Weekly PIG Clinical Meeting on 24th October 2019. Publication date 25th October 2019.

Website: www.perioptalk.org

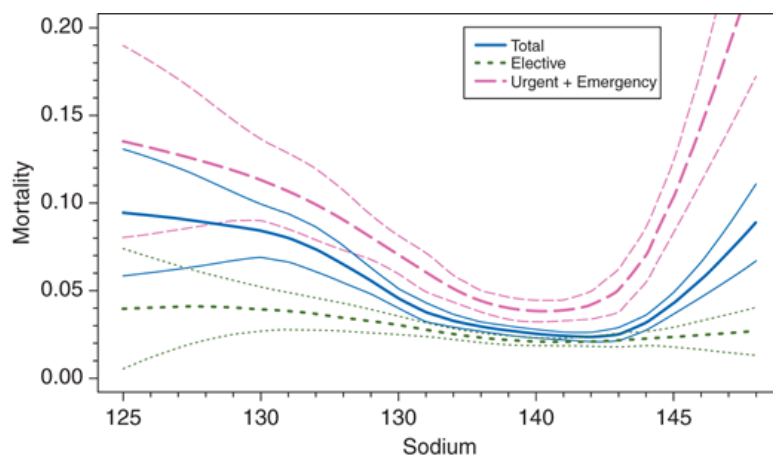
The imperfect opinions in these reports are only meant to stimulate discussion: - they should not be considered a definitive statement of appropriate standards of care.

TOPIC 1: Hyponatraemia

- 72 year old male presented to clinic for neck dissection and free flap
- Previous medical history included:
 - Type 2 diabetes
 - Ex-smoker
 - 2 standard drinks per day used to be 8
 - No cardiac disease
- Note admission to hospital in April this year for hyponatraemia with Na = 121 mmol/L. Had diuretic ceased and discharged home with diagnosis of SIADH. Since then Na 125 – 136 mmol/L
- Repeat sodium in clinic 127 mmol/L.
- Glucose levels were asked 5.4. SIADH, kidney function and other functions.

Discussion:

- Diagnosis of the causes for hyponatraemia. How to diagnose SIADH – a diagnosis of exclusion (requires normal Thyroid and Adrenal function).
- Role of glucose in hyponatraemia – use corrected sodium in setting of hyperglycaemia.
- Possible medication as a culprit – beware the unrecognised combination drugs with diuretic or ACEi.
- Discussion of “cut-off” level of sodium for anaesthesia and surgery. Debate between 125-130mmol/L. Possible factors affecting decision include emergency vs elective surgery, chronic or acute changes, likely fluid shifts during surgery and possible causes for hyponatraemia.
- In this case patient’s surgery deferred for review by GP and correction of sodium with an aim for > 130mmol/L prior to elective surgery.
- See picture below from Cecconi et al Preoperative abnormalities in serum sodium concentrations are associated with higher in-hospital mortality in patients undergoing major surgery, *BJA: British Journal of Anaesthesia*, Volume 116, Issue 1, January 2016, Pages 63–67. (<https://doi.org/10.1093/bja/aev373>)



TOPIC 2: Cystoscopy and ureteric stent change – recent TIA

- Male 74 years old
 - Background of bladder cancer for conservative management with stenting for hydronephrosis (May 2019).
- TIA 6 weeks ago, with aphasia for almost 24 hours. Admitted to Gosford Hospital, commenced on aspirin and clopidogrel.
- Due to see Cardiologist and Neurologist later this month following admission to Gosford hospital.
- Currently reports symptoms of pain from stents.

Discussion:-

- When to operate after CVA/TIA – current recommendations are > 6 months post CVA (see attached editorial), based on observational trials with increased risks in the earlier period.
- Currently on dual antiplatelets. Need for interruption for surgery as requested by Urology team. Is it possible to proceed on aspirin alone.
- Anaesthesia – debate re GA vs spinal for this patient.
- How long to wait for surgery will require a balance between allowing most time after CVA vs technical considerations of ureteric stent removal and replacement that becomes more difficult with increased time.

TOPIC 3: EUA/laparoscopy/dye test for investigation of Abdominal Pain

- Female 21 years old
- Previous medical history
 - Asthma as a child
 - schizophrenia
- Medications
 - Diazepam
 - Methadone 110 mg a day
- Current IVDU. Admits to metamphetamine in past 3 days and injecting methadone on 3 occasions yesterday.

Discussion

- Opioid dependant substance abuse – is it realistic to expect her to change her behaviour for surgery
- Potential for risk to patient and staff of proceeding to elective surgery. Analgesia likely very difficult.
- IF surgery is to be considered – advise patient to be first on list – gives more time to sort out any post operative issues, rather than if last on list.
- Patient discussed with Gynaecology team. Team decision to defer surgery for 3 months. Patient referred back to GP. Recommend drug and alcohol referral and management.
- Patient ideally not actively using IV drugs prior to elective surgery.
- Anaesthetist tried to call patient but no answer.

TOPIC 4: Gastroscopy and Colonoscopy

- Female 74 years old
- Previous medical history
 - Post-Polio syndrome
 - Asthma
 - OSA on CPAP
- Medications include: Contrave (naltrexone and bupropion) – TGA approved medication for weight loss.
- Patient reports good success with medication with 8kg weight loss (now 138 kg)

Discussion

- Contrave was developed in Melbourne at Monash Centre and is an accepted part of the treatments used in obesity.
- Medication affects the hypothalamic centre and satiety, however must continue to take to have effect.
- \$260 per month (not on PBS). Trial for 3 months and if lose 5% of body weight, recommend continuing medication.
- Case reports of managing patients taking Contrave in perioperative period (see case report attached).
- Major concern in perioperative period is the naltrexone (opioid antagonist) component of medication. Recommendations include ceasing naltrexone 3 days prior to elective surgery if possible (see BJA Education exert below).

Naltrexone

Naltrexone is primarily used in patients whom are highly motivated to remain abstinent from alcohol or a substance abuse disorder. It is a long-acting competitive opioid antagonist with a duration of action of ~48–72 h. Chronic use results in increased sensitivity to morphine-induced analgesia and a doubling of brain μ - and δ -opioid receptors, which may return to baseline in ~6 days post-treatment.¹⁹ It is recommended to stop naltrexone 72 h prior to surgery, and it is important to note that although patients may be resistant to opioids while taking naltrexone, they may then become extremely opioid sensitive once stopping it. It is therefore imperative to maximize opioid-sparing strategies (e.g. regional anaesthesia), and consider managing the patient in a high dependency setting in the postoperative period, to ensure appropriate monitoring of treatment.

TOPIC 5: Sodium metabisulfite anaphylaxis

- Female 45 years old
- Planned for hysterectomy
- Known sodium metabisulfite anaphylaxis as preservative in adrenaline containing solutions and in foods preservatives in 220s.
- Patient carried Epi Pen to manage anaphylaxis
- 2 anaesthetics since diagnosis with no concerns (even survived RK anaesthetic!)

Discussion

- Which drugs to avoid? See list below from : <https://www.allergy.org.au/patients/other-allergy/sulfite-allergy> . They include adrenaline, isoprenaline, dopamine, phenylephrine, aminoglycoside antibiotics some dexamethasone and corticosteroid preparations.
- Adrenaline – should we give in anaphylaxis if it contains cause – recommended yes due to benefits outweighing risks
- Interestingly the patient’s immunologist has recommended that patient expose themselves to low-grade exposure to foods preservatives 220 to 228.

Sulfites are also used in some medications

Administration medication	Medications
Topical medication	Some eye drops and creams
Oral medication	No adverse reactions to sulfites have been reported from swallowed medication that might have been contaminated with sulfites.
Injectable medication	Adrenaline (epinephrine), isoprenaline, phenylephrine, dexamethasone and some other injectable corticosteroids, dopamine, local anaesthetics/dental anaesthetics containing adrenaline and aminoglycoside antibiotics are the most common potential sources of exposure. Even in people with serious sulfite sensitivity, the benefit of adrenaline is considered to outweigh any theoretical risk from sulfites in an emergency.

TOPIC 6: CORVIA trial for HFpEF

- Interesting randomised controlled trial of left atrial shunt device for HFpEF taking place in multiple centres including JHH Cardiac cath lab.
- Involves full GA with TOE then +/- device insertion.
- Device requires 14F gauge femoral sheath
- Great youtube video describing device invention and trial rationale :
https://www.youtube.com/watch?v=IYKb2zLS83A&list=PLQLRcwhzkjKDn8HEWQNDiJroJGZS_CzMZ&index=9