"From the Trough"

Perioperative Interest Group Notes

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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: ***Knee Replacement with Dementia.***

An 84 year old man with moderate "pleasantly confused" 'mild' dementia, but objectively worse than initial appearances suggest - MiniCEX 14/30. He knows he is in John Hunter Hospital but has obvious memory issues. Family support/involvement is unclear. He is nevertheless entirely co-operative. He himself has signed the operative consent. The appropriateness of surgery is clear - He has severe knee pain due to osteoarthritis and limited mobility. Surgeons are keen to offer surgery - "the worst knee they have ever seen". Physically he has moderate chronic airways disease with fine crackles throughout his lungs but no evidence of exacerbation in the last few years. No cardiac symptoms reported – no signs of cardiac failure. Possibly a new T wave inversion on ECG since 2017. Should this be investigated?
Discussion:- The surgery has some urgency for analgesia and disability issues. He had previous surgery under a general anaesthetic (other knee) in 2017 without difficulty. Apart from the minor ECG changes, there is no signs of any new cardiac issue. "We treat patients, not ECGs". Investigations are unlikely to change management. Hence not appropriate to investigate the cardiac issues further. The main issue is to clarify is legality of consent – the surgeons need to sort this out between family or public guardian. Advanced care directive (discussion with family?) also needed. Social work needs to be notified and involved. Patient should have an early referral and assessment by rehabilitation preoperatively to make a plan for his postoperative care. This requires direct (phone call) discussion with rehabilitation specialists to clarify why the preoperative notification is required.

TOPIC 2: ***Prophylactic Pacing?***

A 76 year old is booked for an insertion of VP shunt for normal pressure hydrocephalus causing balance issues. Last general anaesthetic was 25 years ago. He was told at that time that his 'heart slowed and we nearly lost him', but no further information is available about this event. He became bradycardic needing temporary transcutaneous pacing in 2016, but at that time he was on beta blockers (now ceased). After this he had echo & sestamibi, both of these not abnormal, and the cardiologist at the time felt that there was no need for ongoing pacing.
Question:- Should this be investigated further? Should temporary pacing or transcutaneous pads etc be put in place?
Discussion:- Despite the interesting history from 25 years ago the effluxion of time seems to have not revealed any major cardiological issues. The 2016 bradycardia episode with a modest dose of beta blocker is interesting, but not a justification for further investigation. It is appropriate to just go ahead but check availability of a chemical pacemaker (i.e. isoprenaline) beforehand.

TOPIC 3: ***SGLT 2 inhibitors not ceased pre-operatively.***

Question:- What is the appropriate management of a patient who has been on SGLT2 inhibitors and has not ceased them pre-operatively?
Discussion:- Although the general advice for elective surgery (at least in Australia) is to cease SGLT2 inhibitors 3 days pre-operatively, it may seem unnecessarily pedantic to cancel elective minor or moderate surgery that is otherwise appropriate to go ahead because the patient has not ceased them. The patients can be managed

satisfactorily, but may require extra observation and intervention. A general protocol is available on the HNELHD information system.

Key Points:- Test for ketones:- this can be done using the normal ward Point of Care (fingerprick) glucometers, using separate ketone testing strips. If below 0.6 it is reasonable to go ahead, continuing to monitor the ketone level using POCT. Above 0.6 a preoperative discussion with an endocrinologist is appropriate. The patient's physiological situation is somewhat analogous to a type 1 diabetic having physiological stress, but without hyperglycaemia. (i.e. Their insulin requirements are increased and they will develop ketoacidosis if this insulin is not available.) Therefore it may be necessary to start an insulin infusion to address the patients increased insulin requirements and prevent ketoacidosis. Secondarily to this, a glucose infusion is needed to prevent hypoglycaemia that may result from the insulin. This is a somewhat counter-intuitive intervention, but has a physiological basis.

See attached:- Latest LHD Policy 'JHH_0047: Glycaemic management in patients awaiting elective surgery '.