"From the Trough"

Perioperative Interest Group Notes

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.

Date: 1st April 2021

TOPIC 1: **Severe asthma and forehead SCC for free flap surgery**

74yo male with a positive margin from a previous forehead SCC resection performed under LA. Consultation for suitability for general anaesthesia.

Background

- Severe asthma secondary to ANCA-negative vasculitis(Chrurg Straus disease)
    - FEV1 1.1L (38%), DLCO 53%
    - Gardens, uses mobility scooter outside the home
    - Maximal medical therapy trialled including monoclonal antibody tx. Now on mycophenylate and prednisone.
- OSA on CPAP - non-adherent at present due to forehead lesion interfering with mask
- Obesity with 30kg weight gain over 3yrs in setting of chronic steroids

Discussion

- **Are there non-surgical options for his SCC?**
    - Concern about asthma exacerbation due to pneumonitis risk with immune cancer therapy.
    - Does not qualify for trials of novel agents due to lack of nodal or distant mets. Qualification on compassionate grounds thought ++ unlikely.
    - Has already trialled radiation therapy - complicated by wound breakdown. Deemed not suitable for further radiotherapy.

- **Is his SOB fully accounted for?**
    - TTE arranged due to orthopnoea but nil major abnormalities found

- **Can he be optimised?**
    - Short course high dose steroids unhelpful due to known steroid insensitivity of his asthma.
    - Resp physician feels no further optimisation possible.

- **Should surgery proceed? What are the risks?**

- Respiratory physician believes patient likely to live 2+ years with lung disease
- There is no documented lower limit of mechanical respiratory function at which general anaesthesia is contra-indicated.
- Wound breakdown felt to be biggest risk given immunosuppression and chronic steroid use for vasculitis
- NSQIP suggests 2.2% risk of death and 20% risk of morbidity for free flap surgery
- Low risk of post operative respiratory complications as per ARISCAT scoring but is the unique risk of severe, life threatening intraoperative bronchospasm accounted for in these scoring systems?

Plan:

- Further discussion with surgeons about options for surgery – they report that there will need to be consultation with plastic surgery to minimize risk of wound breakdown. Will likely need 6 hour procedure.
- ICU level 2 booking if surgery does proceed
- Consideration of nasal CPAP
- Return to GP for assistance (e.g. dietician review) for weight loss preop.

TOPIC 2: Poor diabetes control prior to Whipples

66yo male with pancreatic cancer for a Whipples resection

Background

- Recent ex-smoker
- T2DM
- Ex-heavy ETOH (ceased 3/12 ago)

Issues

- Fitness for major surgery
    - CPET showed AT 10.8ml/kg/min and peak VO2 14ml/kg/min, placing him in the moderate risk category
- High HbA1c 11.8%
    - Poor control ++ since dexamethasone used as part of NACRT
    - Known to private diabetician
    - Therapy escalated
    - BSLs *improved* to 12-14mmol/L

Discussion

- Timing of surgery?
    - Ideally diabetes should be better controlled (as per out guidelines for DM + major surgery) however this is cancer surgery so a risk/benefit analysis must be undertaken
    - After NACRT, a window of opportunity exists, therefore a delay may be appropriate -> discuss with surgeon
    - Control should naturally continue to improve as the effect of the dexamethasone continues to wane

- Diabetes plan
    - Return to private endocrinologist for ongoing care
    - An insulin infusion will almost certainly be part of this man's care due to insulin usage, major GIT surgery and missed meals.

TOPIC 3: Lap chole and clozapine

67yo female for lap chole due to recurrent obstructive jaundice and cholangitis, with one episode causing severe septic shock requiring ICU for vasopressors. Surgery cancelled twice already due to resp status.

Background:

- Schizophrenia
- Dyslipidaemia
- COPD
    - Active, heavy smoker
    - 2 exacerbations this year
    - SpO2 88-93% on RA
    - During exacerbation, FEV1 0.63 33% predicted (previously 1.1L, 50%)
    - Feels she has now returned to her baseline
- Impaired glucose tolerance
- BMI 37
- Neurocognitive disorder - on donepezil
- Hypothyroid - treated
- Lives in group home, guardianship order

Issues

- **Should surgery proceed?**

    - Surgeons have suggested that if she is predicted to survive 1yr+ (from her other comorbidities) then surgery should proceed

    - High risk of further severe illness related to gallstones

- **Can she be optimised?**
    - Resp physicians have suggested that nil further optimisation possible while she continues to smoke
    - On appropriate medical therapy

Plan

- Reasonable to proceed with surgery given risk of critical illness without it.
- Tar in cigarettes induces enzymes in the liver, resulting in more rapid clozapine metabolism. Risk of clozapine toxicity with smoking reduction/cessation therefore exercise caution.
- Liaise with clozapine coordinator to ensure all appropriate investigations up to date and to enable clozapine prescription while in hospital (see attached HNE guideline)
- Nil anticipated missed doses of clozapine with this surgery
- Prewarning of the procedural anaesthetist

TOPIC 4: **Lap chole and severe COPD**

79yo male for lap chole due to recurrent choledocholithiasis. Previously cancelled due to lack of theatre time. Spirometry performed on day of surgery (at clinic doctor's request) but not followed up.

Background:

- HTN
- PVD
- COPD
    - 200m on flat, 1 FOS
    - Community acquired pneumonia 2020
    - Patient feels he's at his baseline, nil exacerbations since 4-5/12
    - On Spiriva and salbutamol
    - FEV 1 0.62 (30%)

Discussion:

- **Indications for spirometry?**
    - See attached DRAFT local guideline (soon to be on periop website)
    - Surgery type - thoracic surgery, major open abdo
    - Patient factors:
        - COPD + intermediate or major surgeries
        - Smoker (>20 years) having intermediate or major surgeries.
        - Uncontrolled asthma.
        - Neuromuscular disorders e.g. M.N.D, Myasthenias)
        - Unexplained shortness of breath.
        - Patients having Consultations for 'Suitability for Surgery'.
        - At discretion/ request of Anaesthetist rostered in clinic or Procedural Anaesthetist

- **What are the risks? Should surgery proceed?**
    - ARISCAT, GUPTA (HAP), GUPTA (resp failure) scoring systems all suggests this man's risk of respiratory complications is low given the laparoscopic nature of surgery.
    - Without surgery he may experience critical illness due to recurrent stones

Plan:

- Proceed with OT
- Notify the procedural anaesthetist

TOPIC 5: **Review of day-of-surgery cancellation - thyroidectomy**

79yo lady

Background

- **Goitre**
    - Previous hyperthyroidism, treated with radioactive iodine, euthyroid since
    - Investigated for hot flushes and sweating, multi nodular goitre found on CT, 5mm retrosternal component
    - Surgical review - thyroid barely palpable, *minimal* symptoms, booked for thyroidectomy

- **Day of surgery:**
    - ACE-i withheld, SBP 220-250 with nil apparent anxiety
    - ECG normal, patient asymptomatic
    - Nil thyroid imaging since 2019, TFTs last checked in 2015
    - Surgery cancelled

Issues

- **Is surgery appropriate in this patient?**
    - A respectful discussion with the surgeon can occur in this context, to explore the anaesthetist's concerns - minimally symptomatic thyroid disease in elderly patient
    - Not uncommon for patients to be booked well in advance of surgery due to long wait-lists. Repeat surgical reviews (in the absence of new or worsening issues) would add substantial burden to the system.
- **Could this outcome have been avoided with a face-to-face review?**
    - Consider testing TSH peri-operatively if not done within 12 months if stable disease or sooner if frequent medication changes required/new cardiac arrhythmias/or signs and symptoms of thyroid disease (see attached DRAFT pre-operative pathology testing guidelines)
    - BP checks in clinic are controversial, with AAGBI guidelines suggesting that values obtained in the community are more appropriate, however a F2F review would have prompted a discussion with the GP if similar values to this were obtained.
    - We are reviewing our practice in the Preoperative clinic to determine how best to capture BP data for patients having phone consultations.
- **BP guidelines?**
    - AAGBI guidelines suggest community based BP readings of <160 SBP and <100 DBP should be achieved before elective surgery, while < 180 SBP and <100 DBP are acceptable in clinic or on day of surgery if prior BP readings are unknown.

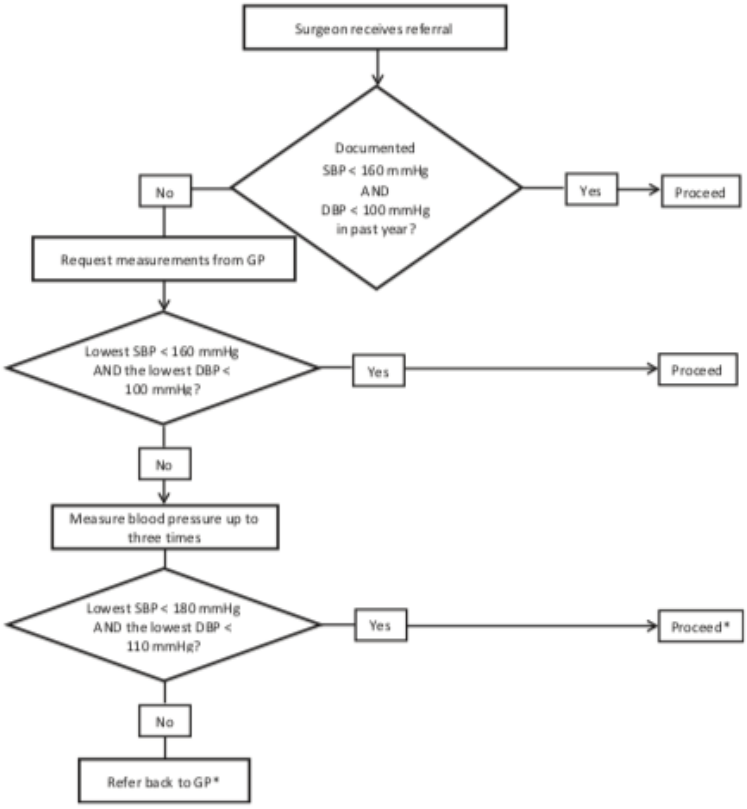

Figure 2 Secondary care blood pressure assessment of patients after referral for elective surgery. *The GP should be informed of blood pressure readings in excess of 140 mmHg systolic or 90 mmHg diastolic, so that the diagnosis of hypertension can be refuted or confirmed and investigated and treated as necessary. DBP and SBP, diastolic and systolic blood pressure.