

FOUNDATION SEMINAR IN SURGERY AND PERIOPERATIVE MEDICINE

**Case Study 7: Integrated Case Study**

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*Reviewed by the SHPA Surgery and Perioperative Specialty Practice Stream Leadership Committee, February 2019*

**You are a pharmacist working in a Pre-Anaesthetic Clinic at your local hospital.**

**You receive a referral to see Mr Ronald Jones.**

**His referral letter states:**

**Thank-you for reviewing Mr Jones.**

**He is a 72 year old gentleman with a complex medical history. He is for a Category 1 L) hemi-colectomy for bowel adenocarcinoma on 15/4/2019. He is booked for surgery on the morning list. His past medical history includes ischaemic heart disease, type 2 diabetes, atrial fibrillation, depression and hypertension. He was admitted to the medical wards last year for his diabetes.**

**Please review and provide perioperative medication management advice.**

**Mr Jones hands you the following discharge medication record.**

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Question 1: What further information would you like to know about Mr Jones before you review his medication?

**He had a ‘heart attack’ back in 2011 and was admitted to the tertiary referral hospital where he had a stent put in his heart. You check his hospital records in the EMR and you see that he had a bare metal stent put in at this time and received 12 months of dual antiplatelet therapy. He ceased clopidogrel in 2012 and continued on aspirin 100mg daily indefinitely.**

**Mr Jones only has his BP checked by his GP when he visits every few months. His last reading in January was 141/82.**

**You calculate his CHADsVA score and he scores a 4 (diabetes, age >65, Hypertension, vascular disease). You see in the EMR that he was diagnosed with AF in 2015 and was commenced on rivaroxaban at this time.**

**Mr Jones tells you that no one has ever told him that he has a problem with his kidneys. He doesn’t have a recent blood test result on him. You phone his GP who tells you that Mr Jones has had a slow decline in his kidney function over the last decade. His eGFR was last reported at 43mL/min/1.73m^2 with a Creatinine of 140 micromol/L.**

**Mr Jones monitors his BGL’s prior to every meal. His pre-breakfast BGL’s are usually around 9mmol/L – he is still taking the same insulin doses as on discharge last year. His GP tells you that his recent HBA1c was 8.5%, which is down from 9.1% from 2018.**

**Mr Jones tells you that his GP started him on Sertraline for major depression about 2 months ago. He takes 50mg in the morning. He manages his own medication and rarely misses a dose.**

Question 2: Using an appropriate guideline and your clinical judgement, what recommendations would you make regarding Mr Jones’ medication management pre-operatively?

**You are the ward pharmacist covering the surgical ward.**

**Mr Jones is admitted to your ward at about 3pm in the afternoon. His operation was uneventful. The surgical team has written the following post-operative note:**

**Post op:**

**APS review for PCA and pain relief. Start dalteparin 5000 units daily tomorrow morning for VTE prophylaxis. For 48 hours IV meropenem for antibiotic prophylaxis. Eat and drink as normal.**

**His Medication Chart looks like this:**

* **Aspirin 100mg tablets, Take 1 tablet daily**
* **Dalteparin 5000unit prefilled syringe, Inject 1 syringe subcutaneously daily**
* **Rosuvastatin 20mg, Take 1 tablet daily**
* **Empagliflozin 10mg tablets, Take 1 tablet daily**
* **Metoprolol 50mg tablets, Take 1 tablet BD**
* **Metformin 500mg XR tablets, Take 2 tablets in the evening**
* **Paracetamol 500mg tablets, Take TWO tablets FOUR times a day**
* **Ibuprofen 400mg tablets, Take ONE tablet THREE times a day**
* **Targin (oxycodone 10mg – naloxone 5mg), Take ONE tablet TWICE a day**
* **Meropenem IV 1g, Inject 1g every EIGHT hours**
* **Actrapid Insulin Infusion, running at 2 units per hour at 3pm in the afternoon**

**BGL’s 4.5mmol/L, 5mmol/L, 5.2mmol/L (hourly since midday)**

**BP on admission to ward is 115/60**

**Ketones pre-operatively were 0.2mmol/L, post-operatively 0.3mmol/L.**

* **Fentanyl PCA 1000mcg/100mL, 1mL boluses, lockout time 5 minutes**

Question 3: What recommendations would you make regarding Mr Jones’ medication regimen?

Question 4: The surgical intern wants your advice on restarting Mr Jones’ regular insulin. What advice would you give them regarding this?

**The following day you are reviewing Mr Jones’ PCA. He has had 20 demands and 15 doses given in the last 24 hours. He is reporting pain his pain as 3 on a 10 point Likert scale.**

Question 5: The APS nurse would like to know what you would recommend as Mr Jones’ would prefer oral medication?

**It is now day 3 following admission. The surgical intern has written you a prescription for Mr Jones’ discharge analgesia. It is for Endone 5mg, Take ONE tablet FOUR times a day when required for a quantity of 20 tablets. He has used 3 x doses of Endone in the previous 24 hours with regular paracetamol.**

Question 6: What recommendation would you have regarding his discharge prescription?