***Department of Anaesthesia and Acute Pain Medicine***

***St Vincent’s Hospital***

Guidelines for Administration of Medications for Inpatients on Day of Surgery

Version 1.0

**Key aligned documents:**

Medication Administration Policy

**Purpose:**

To clarify the requirements for medication administration on the day of surgery.

**1. Medication administration in fasting patients:**

There is no need to withhold medications (excluding some diabetic or anticoagulant medications) purely because a patient is fasting. According to the Australian & New Zealand College of Anaesthetists guidelines medications with a sip of water can be taken up to the time of surgery1. It may actually be harmful to withhold medications routinely because a patient is fasting.

The Department of Anaesthesia and Acute Pain Medicine fasting guidelines for elective surgery state that no solid foods or non-clear liquids are allowed within 6 hours of elective surgery. Small amounts of clear liquids (eg water, clear juices, black tea or coffee) are permitted until 2 hours prior to surgery with the exception of patients with delayed gastric emptying (e.g. autonomic neuropathy, gastric outlet obstruction, prior gastro-oesophageal surgery). Oral medications may be taken with a sip of water up to the time of arrival in the operating room.

**2. Patients with medications due soon after they are collected for theatre:**

This particularly applies to patients who are collected from the ward before their morning medications are due. It is recommended that all regular morning medications be given before a patient is taken to theatre. This may mean that medications may need to be given up to 2 hours before the due time as charted on the medication chart.

**3. Cardiac medications**

Beta-blockers, calcium-channel blockers, anti-hypertensive medications, statins, diuretics, anti-arrhythmics:

-these medications should not be withheld preoperatively unless instructed by a Medical Officer

-abrupt withdrawal of cardiac drugs can lead to angina, myocardial infarction, sudden death, rebound hypertension and arrhythmias2,3,4,5

**4. Antibiotics:**

Those patients who will have intravenous antibiotics due at a time when they will be in theatre should have their antibiotics brought down to holding bay with them so they can be administered by the anaesthetist during the anaesthetic.

**5. Anticoagulant medications (see also St. Vincent’s Hospital Guidelines**

*Heparin, enoxaparin:*

-prophylactic doses are withheld routinely on day of surgery

-management of therapeutic doses to be discussed with Medical Officer

*Warfarin:*

-normally warfarin is managed as per the St. Vincent’s Protocol. If patients arrive while still taking these medications, this should be discussed with Medial Officer

*Novel Oral Anticoagulants and other anticoagulant medications:*

-discuss with Medical Officer

**6. Antiplatelet medications (see also St. Vincent’s Hospital Guidelines)**

*Aspirin:*

- aspirin is not required to be withheld routinely before many surgical procedures6. However, it should be withheld at least 7 days prior to some urologic and neurosurgical procedures. If in doubt, it should be discussed with the surgical team.

- withholding aspirin unnecessarily can be harmful in certain patients (7) (eg those with recent coronary stents)

*Other antiplatelet medication:*

-eg: clopidogrel, prasugrel, ticagrelor

-these are usually withheld at least 7 days prior to surgery. If patients arrive while still taking these medications, this should be discussed with Medical Officer

**7. Diabetic medications**

*Insulin:*

-discuss with Medical Officer if specific instructions are absent

*Oral hypoglycaemic medications:*

-discuss with Medical Officer if specific instructions are absent

**8. Analgesic medications:**

Most regular analgesic medications should be administered on the day of surgery unless otherwise instructed by a Medical Officer. This is of particular importance in patients with arthritis, chronic pain and those requiring methadone.

Some procedures require the withholding of Non-steroidal anti-inflammatory drugs (NSAIDs eg ibuprofen, diclofenac, indomethacin, Mobic). These include urology and neurosurgery.

**9. Gastrointestinal medications:**

*Proton pump inhibitors, H2-receptor antagonists:*

-eg: omeprazole, ranitidine.

- these medications should be continued as they decrease gastric volume and acidity8,9,10, and may potentially decrease the risk of pulmonary aspiration.

**References:**

1. Australian and New Zealand College of Anaesthetists Professional Document PS15: ‘Recommendations on the Perioperative Care of Patients Selected for Day Care Surgery’

2. Fleisher LA, Beckman JA, Brown KA, et al. ACCF/AHA focused update on perioperative beta blockade incorporated into the ACC/AHA 2007 guidelines on perioperative cardiovascular evaluation and care for noncardiac surgery: a report of the American College of Cardiology Foundation/American Heart Association Task Force on practical guidelines. Circulation 2009;120:e169-276.

3. Kennedy JM, van Rij AM, Spears GF, Pettigrew RA, Tucker IG 2000, ‘Polypharmacy in a general surgical unit and consequences of drug withdrawal’, Br J Clin Pharm, 49:353-62.

4. Miller RR, Olson HG, Amsterdam EA, Mason DT 1975, ‘Propranolol-withdrawal rebound phenomenon’, N Engl J Med 293:416-8.

5. George CF 1985, ‘Hazards of abrupt withdrawal of drugs’, Prescr J 25:31-9.

6. Douketis JD, Spyropoulos AC, Spencer FA, et al. (2012) American College of Chest Physicians. Perioperative management of anticoagulant therapy: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines Chest 141(Suppl 2):e326S-e350S.

7. Albaladejo P, Marret E, Samama CM, et al. 2011 ‘Non-cardiac surgery in patients with coronary stents: the RECO study.’ Heart 97:1566-72

8. Maltby JR, Reid CR, Hutchinson A 1988, ‘Gastric fluid volume and pH in elective inpatients: II. Coffee or orange juice with ranitidine’, Can J Anaesth 35:16.

9. Sandhar BK, Goresky GV, Maltby JR, et al 1989 ‘Effect of oral liquids and ranitidine on gastric fluid volume and pH in children undergoing outpatient surgery’, Anesthesiology, 71:327.

10. Memis D, Turan A, Karamanlioglu B, et al 2003, ‘The effect of intravenous pantoprazole and ranitidine for improving preoperative gastric fluid properties in adults undergoing elective surgery’, Anesth Anal, 97:1360.