Supplementary Appendix One – Discharge Prescribing Standards

Discharge prescribing advice for patients undergoing primary, unilateral THA or TKA at the Manukau Surgical Centre
Discharge prescribing guidance applied to all patients except: – Those with multiple drug allergies, including patients who are unable to receive either tramadol or NSAID's. – Strong opioid use in the community prior to surgery. – Advanced age (defined as those >80 years). – ASA Score ≥3 and those with moderate to severe renal, hepatic, or cardiac disease – Complicated in hospital course e.g., prolonged length of stay, medical or surgical complications. In patients who meet one or more of these exceptions, advice should be sought from a Pharmacist or a Specialist from Anaesthesia or Orthopaedic Surgery.
Any new medications should be commenced prior to hospital discharge to allow sufficient time to assess for tolerance and side effects
General Package of Care:
Paracetamol – 1000mg every 6 hours, regularly for four weeks following surgery
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) – Celecoxib – 100mg twice daily, regularly for 2 weeks following surgery. – Consider the use of proton pump inhibitors with NSAID's. – Absolute or relative contraindications to NSAID therapy include: ▪ Allergy or hypersensitivity to NSAID's or sulphonamide agents ▪ Age ≥ 65 years unless clear reasons exist.

▪ Renal disease with eGFR ≤60ml/min or a recent increase in creatinine ▪ Peptic ulcer disease or gastrointestinal haemorrhage ▪ Angina, myocardial infarction, or stroke in the previous three months ▪ Previous coronary artery bypass grafting ▪ Peripheral arterial disease ▪ Heart failure which is symptomatic or on active therapy ▪ 'Triple whammy' of diuretic therapy and ACEi / ARB with NSAIDs
Tramadol Immediate Release – 50mg every 4 hours, as required. ▪ Prescribe 50 tablets – Absolute or relative contraindications to tramadol therapy include: ▪ Age ≥75 unless clear reasons exist. ▪ Allergy or hypersensitivity to tramadol ▪ Seizure disorder or conditions where the seizure threshold is reduced ▪ History of Serotonin Syndrome or the use of MAOi, TCA and high doses of SSRIs ▪ History of alcohol or central nervous system depressant abuse – In those on warfarin, tramadol may cause alterations in warfarin metabolism meaning the INR needs to be measured closely on discharge
Morphine Immediate Release – 10mg every 4 hours, as required. ▪ Prescribe 20 tablets, no repeats. ▪ A controlled drug prescription is required. – Many patients require a prescription for a strong opiate on discharge, especially where contraindications to NSAID or tramadol use exist. – Sustained release medications e.g., morphine (M-Eslon) or oxycodone (OxyContin) should not be prescribed unless strong reasons exist e.g., long term use on admission. ▪ If these have been started, they should be reduced then ceased prior to discharge. – Morphine is the preferred strong opiate on hospital discharge:

▪ Consider changing oxycodone-based preparations to morphine prior to discharge. ▪ In those with renal disease (eGFR ≤30ml/min) consider oxycodone use
Laxatives – Coloxyl with senna, 2 tablets at night as required. ▪ Prescribe 20 tablets. – Constipation following surgery is common. ▪ Those on opiate therapy experience slowing of gastrointestinal transit – Patients should pass a bowel motion prior to hospital discharge
Additional Medications:
Tramadol Sustained Release – 100mg twice daily, regularly. ▪ Prescribe 28 tablets. – This drug is only required in patients with severe post-operative pain which cannot be controlled with medications in the 'General Package of Care'. – Tramadol Sustained Release should be commenced in while in hospital. ▪ Similar absolute / relative contraindications exist to the immediate release formulation. ▪ In some patients, sustained release tramadol is better tolerated.
Antiemetics – Ondansetron 4-8mg three times daily, as required. ▪ Prescribe 20 tablets / wafers. – Used in patients where nausea and vomiting has been problematic in hospital. – Ondansetron can cause both constipation and headache
Proton Pump Inhibitor – Omeprazole – 20mg daily while on NSAID therapy

– Consider omeprazole therapy in patients: ▪ Age ≥ 65 years ▪ High dose NSAID therapy ▪ Concurrent use of aspirin, oral anticoagulants or steroid medications ▪ History of gastritis or uncomplicated ulcer
Nicotine Replacement Therapy – If nicotine replacement therapy has been commenced in hospital and the patient has a continued desire to stop smoking, then this therapy should be continued
Medications to Avoid on Discharge:
Gabapentin / Pregabalin – These medications may be started in those with moderate to severe pain post-operatively. – Due to the lack of benefit and risk of adverse effects these medications should be ceased prior to discharge. ▪ An exception may be patients on long term therapy for neuropathic pain
Codeine or Codeine Containing Medications – Codeine displays variable pharmacokinetics with differences in metabolism between patients. ▪ The analgesia produced is variable with a tendency to constipate. – Those on codeine containing preparations in the community should have these medications ceased and replaced by more effective drugs