Whipple Clinical Pathway

Activities Before Surgery		
	Day -14 to -1	**Day -1**
Clinic Visit	• Pre-op clinic visit • Discuss care map with patient and set expectations • Schedule f/u visit for ~2 weeks post-op • Consent signed	
Diet	• IMPACT advanced recovery drink each day for 5 days prior to surgery	• 8 oz of apple juice before midnight, 1 day prior to surgery • No food after midnight, ok for clear liquids up to 4 hours before surgery
Mobility	• Aim to walk 2 miles/day prior to day of surgery	

Day 0: Pre and Peri-Operative Milestones			
	Pre-Op	**Intra-Op**	**PACU**
Pain Management	• 1,000 mg Acetaminophen PO pre-op, then IV • Order Exparel 1.3% (13.3 mg/mL) injectable suspension	• 1,000 mg Acetaminophen PO pre-op, then IV • Surgeon to administer Exparel (long-acting local anesthetic)	• IV PCA
Diet	• 8oz apple juice 2 hours before surgery (no exceptions for diabetics)		
Fluids	• D5LR at 50 ml/hr	• 2 ml/kg/hr of LR. Give 500 mL LR bolus extra during first 30 min	• D5LR at 1ml/kg/hr • Target UOP> 25 mL/hr
Mobility			
Medications	• Heparin 5,000 Units SQ	• Start pre-op abx (Levofloxacin) immediately in OR	• Insulin drip protocol if BG >140 and /or diabetic
Vitals/ Monitoring	• Check blood glucose hourly, keep <140 mg/dL	• Check blood glucose hourly, keep <140 mg/dL • Standard anesthesia management (The goals of perioperative management is to keep patient hemodynamically stable with restricted fluids. Hypotension to be treated with fluid boluses and phenylephrine up to 0.8 mcg/kg/min. Avoid Vasopressin boluses and infusion by all means).	• Check blood glucose hourly, keep <140 mg/dL
Labs			• Labs 1 hr after PACU arrival: CBC & CMP
Nursing / Lines	• Place portable Sequential Compression Devices (SCDs) in pre-op area	• Foley (temp-sensing) • 2 large bore IV (16 gauge) +/- arterial line • Heating mattress or blanket + Bair hugger • NO routine NGT • Surgical drain placed intra-op ☐ Gravity bag ☐ Bulb suction	• Continue foley catheter

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Inpatient Milestones: 7SA Target Post-Op LOS = 3-5 days			
	Day 0	**Day 1**	**Day 2**
Pain	• 650 mg Acetaminophen PO elixir/tablet q6h scheduled until d/c • IV PCA (if pain uncontrolled adjust PCA first PRN)	• 650 mg Acetaminophen PO elixir/tablet q6h scheduled until d/c • Discuss Ketorolac (15 mg q6h x's 24 hrs) or other NSAID with attending for pain if not contraindicated • Continue IV PCA	• 650 mg Acetaminophen PO elixir/tablet q6h scheduled until d/c • Continue IV PCA
Diet	• Chew gum after surgery • Modified Clear Liquid Diet (RN administered – sips of water, ice chips, and meds only) • Fluid Restriction: <8oz/8hrs at a pace of 30 ml/hr	• Modified Clear Liquid Diet (RN administered – ok for clears (i.e. broth, jello, gatorade) • Fluid Restriction: <8oz/8hrs at a pace of 30 ml/hr	• Advance to General Diet if tolerating CLD
Fluids	• Target UOP>25 mL/hr • D5LR at 1ml/kg/hr (modify for CHF, CKD)	• Target UOP> 25 mL/hr • D5LR or LR (istotonic), rate: 0.5 ml/kg/hr (modify for CHF, CKD)	• D5LR or LR or 0.45% NS, unless tachycardic or low UOP
Mobility	• Encourage to sit up on edge of bed after last set of post-op VS (usually 6hrs). Obtain orthostatic VS	• OOB for all meals • Walk 3-4 times in the hall – goal 1/2 mile & OOB 6hr/day	• OOB for all meals • Walk 3-4 times in the hall – goal 1 mile & OOB 6hr/day
Medications	• Peri-op beta blocker (resume if h/o BB use or arrhythmia) • Pantoprazole 40 mg IV daily • Antiemetics (Ondansetron) • Insulin drip protocol	• Heparin 5,000 Units SQ q8h • Pantoprazole 40 mg IV Daily • Insulin drip protocol (change to SQ insulin if < 1 unit/hr for 12 hrs)	• Change from SQH to Lovenox 40 mg SQ qHS at 2100 (consult Rx if CKD) • Change Pantoprazole from IV to PO • Begin Pancreatic Enzymes (resume if pt was on at home) • Start Docusate 200mg PO BID and Senna 17.2mg PO qHS
Vitals/ Monitoring	• Weigh daily until d/c • IS:10x/hr while awake until d/c • I&O q8h • Urine output + vital signs q1h X 2, q2h X 2, then q4h	• Weigh daily until d/c • IS:10x/hr while awake until d/c • I&O q8h • VS q4h	• Weigh daily until d/c • IS:10x/hr while awake until d/c • I&O q8h • VS q4h
Labs		• CBC, CMP & serum amylase @ 0500 • Drain amylase @ 0500	• CBC & CMP @ 0500

Nursing / Lines	• SCDs on while in bed until d/c • Record drain output every 4 hours	• SCDs on while in bed until d/c	• SCDs on while in bed until d/c • Consider removing foley catheter. No fill and pull unless previous failed attempt
Support Services		• PT/OT Consults • Nutrition Consult	• Pharmacy Consult (Lovenox teaching) • Nutrition Consult (Diet education)

Inpatient Milestones:7SA Target Post-Op LOS = 3-5 days			
	Day 3	**Day 4**	**Day 5**
Pain	• Consider D/C PCA (after lunch) • Discontinue Ketoralac (if on it). Start Ibuprofen 600 mg PO q6h • Transition to Oxycodone 5-15 mg PO q3h PRN		
Diet	• General Diet		
Fluids	• HLIV		
Mobility	• OOB for all meals • Walk 3-4 times in the hall – goal 1 mile & OOB 6hr/day		
Medications	• If >5kg over pre-op weight give Lasix 10 mg IV if renal function adequate	• If still >5kg over pre-op weight give Lasix 10 mg IV. If inadequate response, give Lasix 20 mg IV • If no bowel movement to date, administer suppository or enema (as preferred by patient)	•
Vitals/Monitoring	• Weigh daily until d/c • IS:10x/hr while awake until d/c • I&O's q8h	• Weigh daily until d/c • IS:10x/hr while awake until d/c • I&O's q8h	•
Labs	• CBC, CMP & serum amylase @ 0500 • Drain amylase @ 0500	• Consider D/C labs if stable (especially LFTs)	•
Nursing / Lines	• SCDs on while in bed until d/c	• Consider removing drain if drain amylase is <3 x serum amylase or <318 (whichever is greater)	•
Support Services	• Order DME (walker, cane, etc.) • Secure lodging arrangement (discuss	• Shower with OT • Prepare discharge (Med recon, send	• Goals for D/C (tolerate diet, pain controlled, return of bowel function,

	with social work) • Review PT/OT recs. Assess for SNF or Home Health needs • Discuss diabetic education with nutrition and pharmacy i.e. insulin regimen • Consult Hyperglycemic Team if blood sugars uncontrolled or patient is new to insulin	prescription, complete inpatient DC form, and confirm FU in 1-2 weeks)	ambulate safely, diabetic and pharmacy education completed (if indicated) • Follow up appointment is schedule for 1-2 weeks from now • D/C home or to local hotel if patient lives > 2 hrs from Seattle • Referral to outpatient dietician for patients with poor PO intake/continue to lose weight • Inpatient team communicate with outpatient team