Anesthesia
Preoperative Considerations

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Purpose

- To obtain the most appropriate picture of a patient via chart review and assess if it is safe to undergo the proposed surgery.
  - Is the patient as optimized as they can be?
  - How urgent is the surgery?
- If you were the provider in the OR on day of surgery, what would you want to know prior to proceeding?

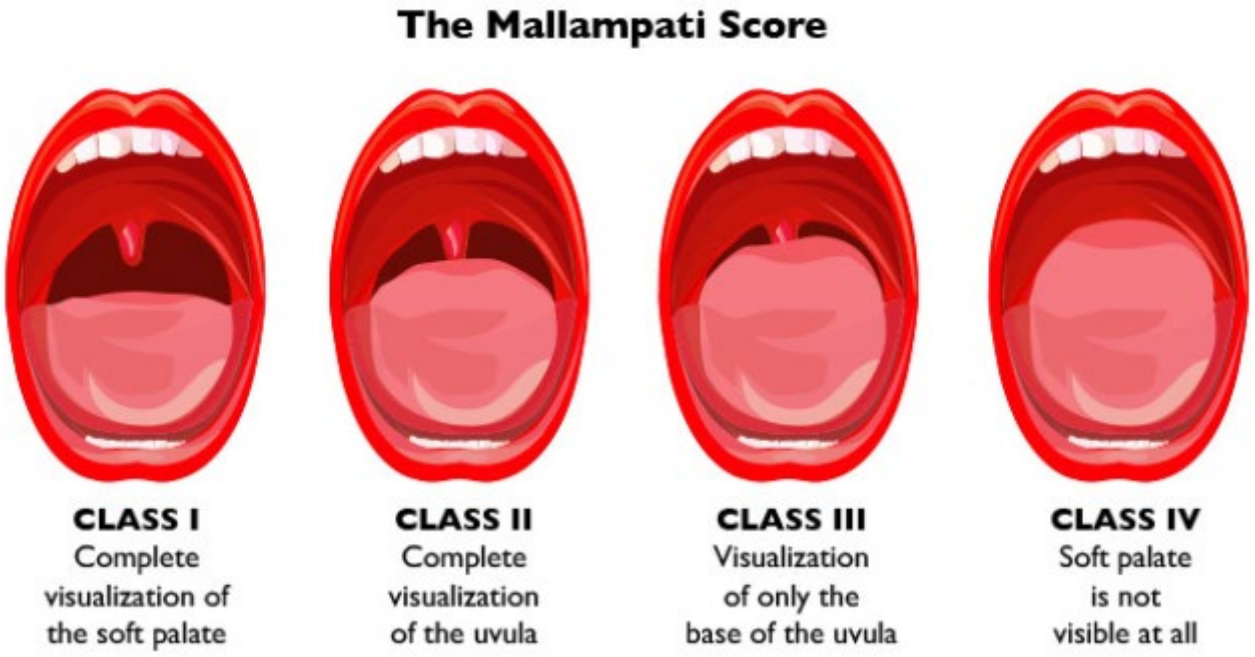
Most Common Reasons for Cancelled Cases:

- Main OR, OSS, GHEI, and Chao Procedures for FY22 (July 2021 to June 2022)
- All cases that go through CPC (outpatients, AM admits, 23 hour Obs). No inpatient cases were included.

Row Labels	Count of Case #
Patient Canceled	230
Patient No Longer Needs Surgery Or Procedure	207
Critical Trauma Cleared (Uci Only)	186
Scheduling Error	124
Acute Change In Patient Medical Condition	110
Order Merged Into Multi-Panel Case	93
Financial/Ins Authorization Not Approved	43
Reschedule To Uasc Or Other Outside Surgery Center	38
Alternate Date Requested	37
Covid-19 Tested Positive	23
No Show Day Of Surgery Or Procedure	23

Airway Concerns:

- If the patient has seen an ENT physician at UCI, we review notes carefully for physical exam, airway exam, flex laryngoscopy or other airway procedures.
- We also carefully review the surgeon's note for difficult airway or any other special management considerations.



Cardiac

- HTN History – medications, whether well controlled, baseline BP's at home or last recorded
- Afib/Dysrhythmias History – medications, whether rate controlled, associated symptoms, anticoagulation use
- Valvular Pathology History –severity, recent Echo report, associated symptoms, functional status, history of replacement and associated anticoagulation
- Coronary Artery Disease History –angina frequency, medications, interventions (stents, CABG), Cath/Stress test reports, AntiPLT therapy, functional status
- ICD/Pacemaker History **– indication, location, last interrogation, Maker, Model, Mode, Magnet response, patient Dependence, if ever shocked by device, battery life remaining**
- Heart Failure –functional status, baseline exercise tolerance, data if active CHF (BNP), medications, diuretics, cardiac workup/interventions

Functional Capacity and Exercise Tolerance:

Functional Capacity

[] 1 MET: Basic ADLS, dress, eat

[] 2 METS: Walk around house, get out of bed

[] 3 METS: Walk 2 blocks, light housework, walk downstairs

[] 4 METS: Vacuum, scrub, light yard work, carry 10 lbs

[] 5 METS: Climb 1 floor stairs, walk >4 blocks, dance

[] 6 METS: Mow lawn, carry >20 lbs, >9 holes golf

[] 7 METS: Heavy yard work, carry >40 lbs, walk 1 mile or uphill

[] 8 METS: 30 min aerobic exercise, sports, swim, jog

[] >10 METS: Strenuous sports

Pulmonary

- Existing pulmonary disease?
  - Asthma? COPD? OSA w/ CPAP compliance? AHI? Medications? Treatments?
- Recent pulmonary function test results?
- Tobacco use?
- Past hospitalizations for breathing issues?
- Post-covid or long covid symptoms?

Pediatric Patients <18 years olds

Team	Description
Peds A (double-boarded active pedatric anesthesiologists)	Age: under the age of 2 or over the age of 2 and sick/complex with a pediatric problem (any age) Pulmonary disease, ventilator/g-tube dependent, severe burns, adult patients with h/o congenital syndromes or congenital heart defects, pediatric complex spine, neuro cases requiring pediatric regional. **Requires staffing with pediatric anesthesiologist** **Not acceptable candidate for GHEI**
Peds B (selected team who have demondstrated the ability and experience to care for normal children, approved by pediatric division chief, Dr. Katherine Chiu)	Age: 2-8 and healthy **Requires staffing with pediatric anesthesiologist**
Peds C (all other clinical providers)	Age: Over 8 and healthy **Requires staffing with CPC Attending**

Pediatric Patients <18 years olds

Perinatal Hx: delivery, labor course

CV: murmur

Pulmonary: asthma, recent URI

GI: GERD (neonatal)

Heme: bleeding issues in family

Any prior surgery hx

Any genetic issue or suspicion for genetic sx

Any childhood surgery needed?

Preoperative Testing Grid:

		Urine Preg Test	PT/PTT/INR	CBC	Type & Screen	BMP	EKG	CXR	Other Disease/ Procedure Specific Studies
Minor Surgery	Low Bleeding Risk		☐*(Consider IF positive bleeding questionnaire)				☐ M, F>60	Abnormal lung exam Active Pulmonary process Cardio-thoracic, Vascular thoracic surgery	See Appendix A
	High Bleeding Risk		☐	☐					
Major Surgery	Low Bleeding Risk		☐ *(Consider IF positive bleeding questionnaire)	☐ *(Consider IF positive bleeding questionnaire)			☐ M>50, F>60		
	High Bleeding Risk		☐	☐	☐				
Diabetes, Hx. of Renal Failure, HTN, Patient on Diuretics						☐ (**)			
Reproductive Age		☐							

** Repeat if older than 6 months or recent change in clinical status, Optional for ALL Minor surgery procedures

- EKG's, CXR by guidelines are accepted within 6 months on patients with stable clinical conditions that indicate that there are no changes
- Pacemaker interrogations are accepted within 6 months
- BMP within 6 months if they have diabetes, hx of renal failure, hypertension, or are on diuretics
- Patients with active medical conditions have had medication adjustments, or where abnormalities are identified on labs in past 6 months require repeat labs within 30 days of procedure. Optional for ALL Minor surgery procedures
- ESRD patients require K+ on the day of procedure.
- Urine pregnancy testing if indicated on the day of procedure.
- Diabetics require glucose on date of procedure.

Bleeding Questionnaire:

Bleeding Questionnaire:

Yes	No	
☐	☐	1. Have you had abnormal bleeding following: Dental Extractions? Major/minor operations? Major/minor injuries?
☐	☐	2. Do you have trouble with any of the following: Easy bruising (bigger than 2 inches)? Frequent nose bleeds? Abnormal heavy menstrual periods? Bleeding into joints or muscles? Oozing a long time from cuts or scrapes?
☐	☐	3. Have you ever needed a blood transfusion for unexpected or excessive bleeding after a surgical procedure?
☐	☐	4. Is there any family history of abnormal bleeding?
☐	☐	5. Do you currently take any sort of anticoagulant (blood thinner) medication? (Coumadin, Lovenox, Pradaxa, etc.)

Note: If a patient is actively taking an antiplatelet drug (NSAIDs, ASA) up until the time of surgery, this may increase the risk of bleeding regardless of results of coagulation studies.

Labs:

	Normal Range	Actions
CBC		
WBC	4.0 -11.5 thous/mcl	Abnormal values could be an indicator of a bone marrow proliferative disorder, inflammation, or infection. If the patient has a known disorder that would account for this value, it does not need further work up.
Hgb	<8 g/DL	Notify the clinic and ask if the surgeon would like to order blood for the procedure and if any additional optimization (transfusion, Fe, Epogen) should be considered.
Hct	<24 %	Same as above
Plt	<100 thous/mcl	Notify the clinic and ask if the surgeon would like platelets to be ordered for the day of procedure.
Chemistry		
Na	130-149 mmol/L	Notify the clinic and ask them to have the patient seen to investigate and optimize.
K	3-5.5 mmol/L	Notify the clinic and ask them to have the patient seen to investigate and optimize.
Cr	<2.0 mg/dL	The anesthesia team will use these values to help determine which medications are safe, but we would not likely cancel a case because of an abnormal Cr, especially if there is a pre-existing renal pathology like obstructive nephropathy (stones), ESRD, or CRI. If the patient is otherwise healthy and has and abnormal value without work up, please notify the CPC attending and surgeon to optimize.
LFTs		The anesthesia team will use these values to help determine which medications are safe, but we would not likely cancel a case because of an abnormal LFT, especially if there is a pre-existing liver pathology like cirrhosis, metastasis, or stones. If the patient is otherwise healthy and has and abnormal value without work up, please notify the CPC attending and surgeon to optimize.
Coags	INR > 1.3	Coagulation studies may be abnormal if the patient has liver disease/failure or is on anticoagulation. For abnormal values, please contact the clinic and ensure that appropriate anticoagulation instructions have been provided by the clinic or cardiology if the patient has Afib, heart valve replacements, or other indications for blood thinners.
Trop I	>0.03 ng/mL	Notify the CPC attending for any elevated values
Thyroid studies		If any of these values are abnormal, especially TSH, the surgeon's clinic needs to be notified, and a clearance note from the patients PCP or endocrinologist would be necessary.

UCI Health

Location Considerations:

- Purpose: To provide safe and efficient care to patients scheduled for procedures/surgery under anesthesia.
  - Avoid case cancellations of patients who are not appropriate surgical candidates.

Medical Optimization Notes:

- We check the surgical note for the procedure being booked and plan. The surgeon may want the hospitalist to see the patient before proceeding to surgery.
- An optimization note is provided by a provider who is following the patient longitudinally.
  - Requesting if the patient is in the best condition they can be in or if medication(s) or testing warranted prior to surgery/procedure
  - This reduces intraop and postop morbidity and mortality.

Medical Conditions That Would Necessitate Clearance by Hospitalist/Outside Network Internist:

- Cardiovascular: Unstable or new onset angina, congenital heart disease not followed, severe PVD not followed, recent or current CHF, history of heart transplant, new onset of arrhythmias or changes on EKG
- Pulmonary: asthma with active wheezing on exam, severe pulmonary disease, shortness of breath with minimal exertion
- Neurological: myasthensia gravis
- Hepatic: Cirrhosis, history of liver transplant
- Renal: HD or PD, history of kidney transplant hematologic, history of a bleeding disorder
- Endocrine: hypothyroidism uncontrolled on medication, pheochromocytoma
- Cancer related: history of Adriamycin or bleomycin in recent/past
- Medications: on coumadin or thrombolytic therapy

Questions?

Center of Perioperative Care (CPC)

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