

**Col.Siriluk Chumnavej**



Patient Profile	Physical Examination	Investigation
Name..... Age.....Ward..... HN.....AN..... Date.....Op.Room.....	Wt.....kgs, Ht.....cms, BMI..... V/S at ward เวลา.....น. :T.....°C BP...../.....mmHg ,PR.....b/m, RR.....b/m <u>General appearance :</u> Conscious : <input type="checkbox"/> alert <input type="checkbox"/> lethargic/response to pain <input type="checkbox"/> unable to response <input type="checkbox"/> GCS score..... Limitation ROM of neck : <input type="checkbox"/> No <input type="checkbox"/> Yes Nose : <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal..... <u>Airway assessment :</u> Mallampati Grade : <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 Thyromental distance : <input type="checkbox"/> > 6cm. <input type="checkbox"/> < 6cm Mouth opening : <input type="checkbox"/> >3 cm. <input type="checkbox"/> <3cm. Prominent incisor : <input type="checkbox"/> No <input type="checkbox"/> Yes Upper Lip bite test : Class <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <u>Oral/ Dental :</u> <input type="checkbox"/> Normal <input type="checkbox"/> ฟันหน้ายื่น <input type="checkbox"/> ฟันโยก <input type="checkbox"/> ฟันผุ <input type="checkbox"/> ฟันได้รับการบูรณะ ด้วยวัสดุต่างๆ <input type="checkbox"/> ฟันหลอ/ฟันห่าง <input type="checkbox"/> ทำครอบฟัน <input type="checkbox"/> มีรากฟันเทียมฝังแน่น <input type="checkbox"/> มีฟันปลอมถอดได้ <input type="checkbox"/> มีฟันปลอมถอดไม่ได้ <input type="checkbox"/> ใส่อุปกรณ์จัดฟัน <input type="checkbox"/> advice risk of dental injuries	<u>CBC :</u> Hb.....%Hct.....% Plt..... <u>Electrolyte :</u> Na.....K..... Cl.....CO <sub>2</sub> ..... BUN.....Cr.....FBS.....mg% <u>Coagulogram :</u> PT.....INR..... PTT.....ratio.....,TT.....ratio..... Other LAB.....
<u>Diagnosis and Operation</u> Dx..... Operation.....		<u>Other investigations</u> EKG (date)..... <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal ..... Echo (date)..... <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal..... CXR (date)..... <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal .....
<u>History</u> <u>Known Disease :</u> <input type="checkbox"/> No <input type="checkbox"/> Yes : <input type="checkbox"/> DM <input type="checkbox"/> HT <input type="checkbox"/> DLP <input type="checkbox"/> HD <input type="checkbox"/> CKD <input type="checkbox"/> Others..... Medications..... <u>Pregnancy :</u> <input type="checkbox"/> No <input type="checkbox"/> Yes IUP.....wks. <u>Smoking :</u> <input type="checkbox"/> No <input type="checkbox"/> Quit smoking <input type="checkbox"/> Yes.....pack-yrs. <u>Alcohol :</u> <input type="checkbox"/> No <input type="checkbox"/> Yes..... <u>Allergic History :</u> <input type="checkbox"/> No <input type="checkbox"/> Yes..... <u>Family History :</u> <input type="checkbox"/> No <input type="checkbox"/> Yes..... <u>Previous Anesthesia :</u> <input type="checkbox"/> No <input type="checkbox"/> Yes : Op & Type of Anesth. & Date ..... .....	<u>Difficult intubation expected :</u> <input type="checkbox"/> No <input type="checkbox"/> Yes <u>Artificial airway :</u> <input type="checkbox"/> None <input type="checkbox"/> ETT <input type="checkbox"/> TT <u>Oxygen therapy :</u> <input type="checkbox"/> None <input type="checkbox"/> Cannula <input type="checkbox"/> Face Mask <input type="checkbox"/> Mask with bag <input type="checkbox"/> Ventilator : FiO <sub>2</sub> .....TV.....RR.....PEEP.....	<u>Blood Preparation :</u> PRC.....unit FFP.....unit Plt.....unit Cryo.....unit Others..... <u>ICU Post Op Plan</u> <input type="checkbox"/> No <input type="checkbox"/> Yes, plan ICU..... <input type="checkbox"/> ย้าย Ward..... NPO : .....hrs
<u>Problem List</u> 1..... 2..... 3..... 4..... 5.....	ASA Physical Status : 1 2 3 4 5 6 E Functional Class (NYHA) : I II III IV <u>Anesthetic Planning :</u> <input type="checkbox"/> GA with ETT <input type="checkbox"/> Undermask <input type="checkbox"/> LMA <input type="checkbox"/> TIVA <input type="checkbox"/> Sedation <input type="checkbox"/> SA <input type="checkbox"/> EA <input type="checkbox"/> BB <input type="checkbox"/> PNB <input type="checkbox"/> LA <input type="checkbox"/> MAC <u>Advice Post op Pain control :</u> <input type="checkbox"/> IV <input type="checkbox"/> Intrathecal Opioid <input type="checkbox"/> PNB <input type="checkbox"/> PCA <input type="checkbox"/> PCEA <u>Advice Risk of Anesthesia :</u> <input type="checkbox"/> ผู้ป่วย <input type="checkbox"/> ญาติ เกี่ยวข้องเป็น..... <input type="checkbox"/> ข้าพเจ้าได้รับทราบข้อมูล คำแนะนำในการปฏิบัติตน และภาวะแทรกซ้อนที่อาจเกิดขึ้น จากการระงับความรู้สึกในครั้งนี้ เป็นที่เข้าใจแล้ว ลายมือชื่อ.....ผู้ป่วย / ญาติ ลงชื่อ...../.....ผู้ให้ข้อมูล	
		วันที่...../...../.....

# Outline



Key elements of the preanesthetic evaluation



Evaluation of the Patient with Known Systemic Disease



Preoperative Laboratory Testing



Preparation for Anesthesia



Preoperative Medication



Antibiotic Prophylaxis

# Key elements of the preanesthetic evaluation

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# Key elements of the preanesthetic evaluation

planned surgical procedure & its indication

patient's present & past medical history

current medications & drug allergies

social history; use of alcohol, tobacco, illicit drugs

response to previous anesthetics

physical examination

Laboratory tests (blood, ECG, chest x-ray) as needed

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# Planned surgical procedure & its indication

Type of anesthesia

Patient positioning

Blood loss

Monitoring requirements

Risk of postoperative complications

Clinical Anesthesia Fundamentals, Paul G. Barash, Chapter 16: *Preoperative Evaluation and Management*, 6<sup>th</sup> ed, 2015

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# Patient's present & past medical history

## ASA Physical Status Classification System

## Metabolic Equivalents

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# American Society of Anesthesiologists' (ASA) Physical Status Classification System

- 1 Normal healthy person
- 2 Mild systemic disease that results in no functional limitation
- 3 Severe systemic disease that results in functional limitation
- 4 Severe systemic disease that causes a constant threat to life
- 5 Moribund patient not expected to live without the planned surgery
- 6 Brain-dead person whose organs are being removed for donation
- E Qualifier used for emergency procedures

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# Metabolic Equivalents for Common Physical Activities

## Metabolic Equivalents

## Examples

1

Watching television

|

Eating, dressing

|

Walking on level ground at 2 to 3 mph

∨

Doing light housework (e.g., dusting)

4

Climbing a flight of stairs

|

Walking on level ground at 4 mph

∨

Doing heavy chores (e.g., scrubbing floors)

>10

Playing strenuous sports (e.g., tennis)

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# Current Medications & Drug Allergies

- Cardiovascular Medications
- Endocrine Medications
- Psychotropic Medications
- Drugs Affecting Platelet Function
- Oral Anticoagulants
- Opioids & Medications Used to Treat Addiction
- Herbal or Complementary Supplements
  
- Drug Allergies

# Guidelines for Perioperative Management of Patients with Diabetes

Schedule as first case of the day to avoid prolonged fasting, if possible.

Hold oral hypoglycemic drugs on the day of surgery; hold metformin for 24 hours prior to surgery.

Continue usual insulin regimen through the evening prior to surgery.

For patients with type 1 diabetes, administer half the usual dose of intermediate or long-acting insulin on the morning of surgery; for patients with insulin pumps, continue infusions on a basal rate. Begin a dextrose-containing insulin infusion upon arrival in surgical suite.

For patients with type 2 diabetes, administer one-third to two-thirds the usual dose of intermediate or long-acting insulin on the morning of surgery, depending on the patient's usual morning fasting blood glucose measurements.

Measure blood glucose level every 1 to 2 hours during surgery.

# Approach to Perioperative Corticosteroid Coverage

steroids → prednisone  $\geq 5$  mg/day for at least 1 month within 6 - 12 months

Type of surgery	Hydrocortisone IV prior to induction	Hydrocortisone IV every 8 hrs for 24 hrs.
minor	take usual morning steroid dose	-
moderate	50 mg	25 mg
major	100 mg	50 mg

# Perioperative Effects of Common Herbal Supplements

<b>Name</b>	<b>Perioperative Effects</b>
<b>Echinacea</b>	Hepatotoxicity; allergic reactions
<b>Ephedra</b>	Enhanced sympathomimetic effects with other sympathomimetic agents, dysrhythmias
<b>Feverfew</b>	Inhibits platelet activity
<b>Garlic</b>	Inhibits platelet aggregation
<b>Ginkgo</b>	Inhibits platelet activating factor
<b>Ginseng</b>	Hypoglycemia; inhibits platelet aggregation and coagulation cascade
<b>Kava</b>	Hepatotoxicity, decreased MAC
<b>Licorice</b>	Increased blood pressure, hypokalemia
<b>St. John's wort</b>	Inhibits serotonin, norepinephrine, and dopamine reuptake; induction of cytochrome P450 enzyme, leading to increased drug metabolism
<b>Vitamin E</b>	Increased bleeding when taken with other anticoagulant or antithrombotic medications

# Current Medications & Drug Allergies

- Drugs to be continued or tapered slowly

Propranolol

Statins

Clonidine

# Current Medications & Drug Allergies

- Discontinuation of some drugs

Monoamine oxidase inhibitors

ACE inhibitor, ARBs, Diuretics

Oral contraceptives  
or hormone replacement therapy  
stop 4 - 6 wks

# Current Medications & Drug Allergies

- Discontinuation of some drugs

Aspirin 7-10 days

Clopidogrel & Ticagrelor stop 5 days

Prasugrel stop 7 days

Ticlopidine stop 10 days

NSAIDs ; ibuprofen , naproxen stop 3-5 days



# Current Medications & Drug Allergies

- Discontinuation of some drugs

Warfarin stop 5 days → bridging therapy

Dabigatran stop 1 - 2 days  
(CCr < 50 mL/min stop 3-5 days)

Rivaroxaban & Apixaban stop 1-2 days

# Social History

Smoking

Alcohol

Substance abuse

# Response to Prior Anesthetics

Personal or familial history of complications related to anesthesia

Difficult tracheal intubation

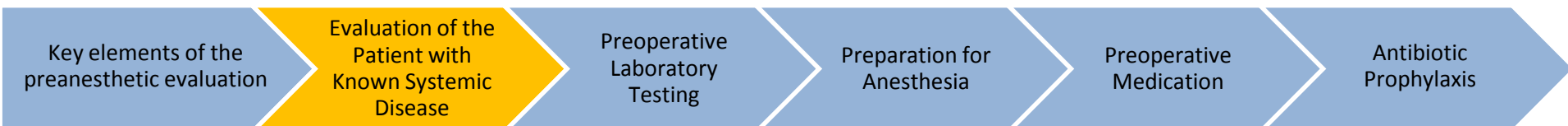
Prolonged postoperative nausea or vomiting

Difficulty associated with spinal anesthesia

Malignant hyperthermia

Prolonged hospital stays or ventilator dependence

# Evaluation of the Patient with Known Systemic Disease



# Evaluation of the Patient with Known Systemic Disease

Cardiovascular Disease

Pulmonary Disease

Endocrine Disease

*Other Organ Systems and Conditions*

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# Cardiovascular Disease

Cardiac Risk Assessment

Perioperative Coronary Stents

Patients with Cardiovascular Implantable  
Electronic Devices

Hypertension

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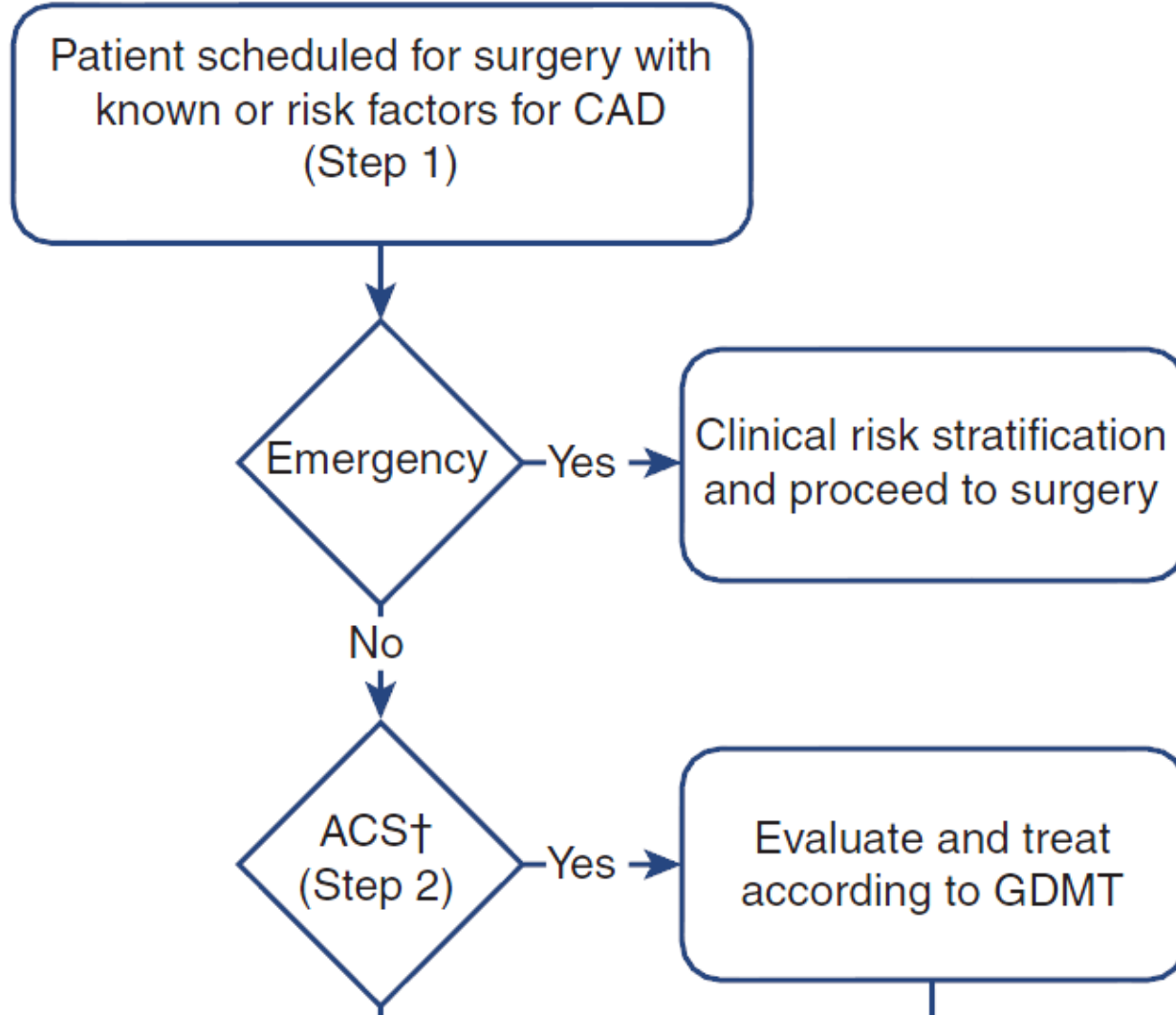
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# Stepwise Approach to Perioperative Cardiac Assessment for CAD



Key elements of the preanesthetic evaluation

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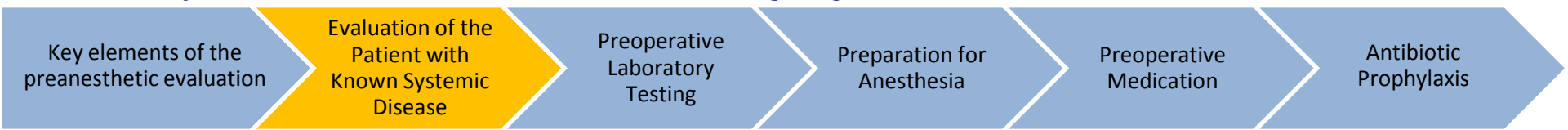
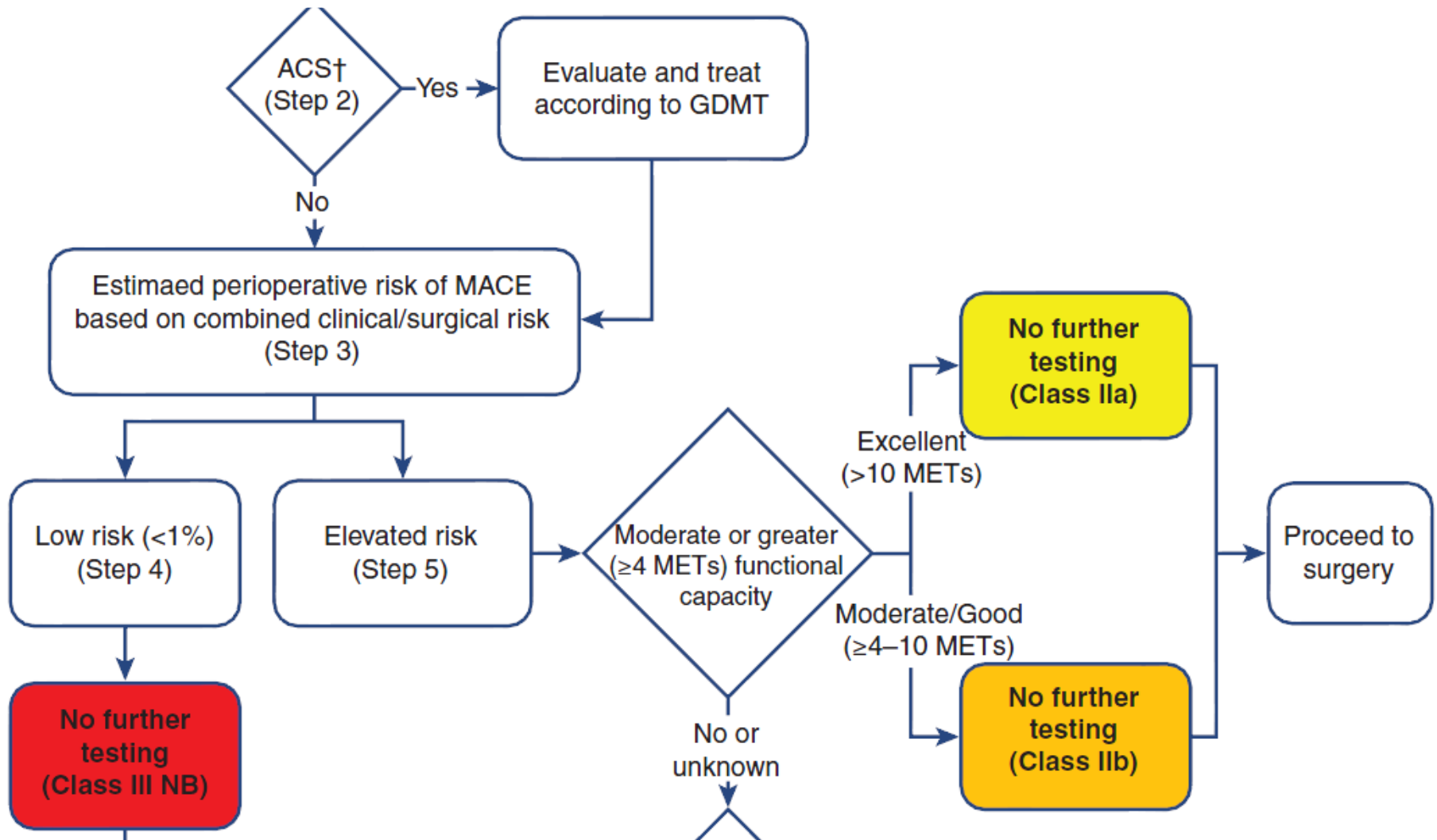
Preoperative Laboratory Testing

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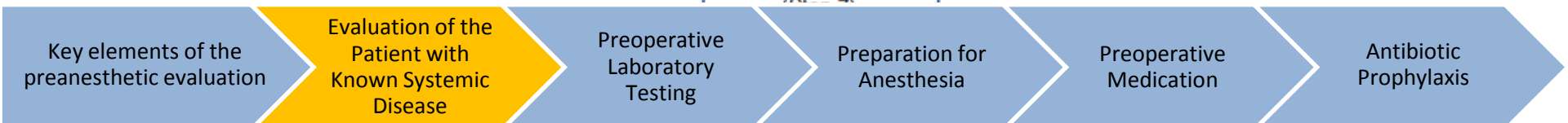
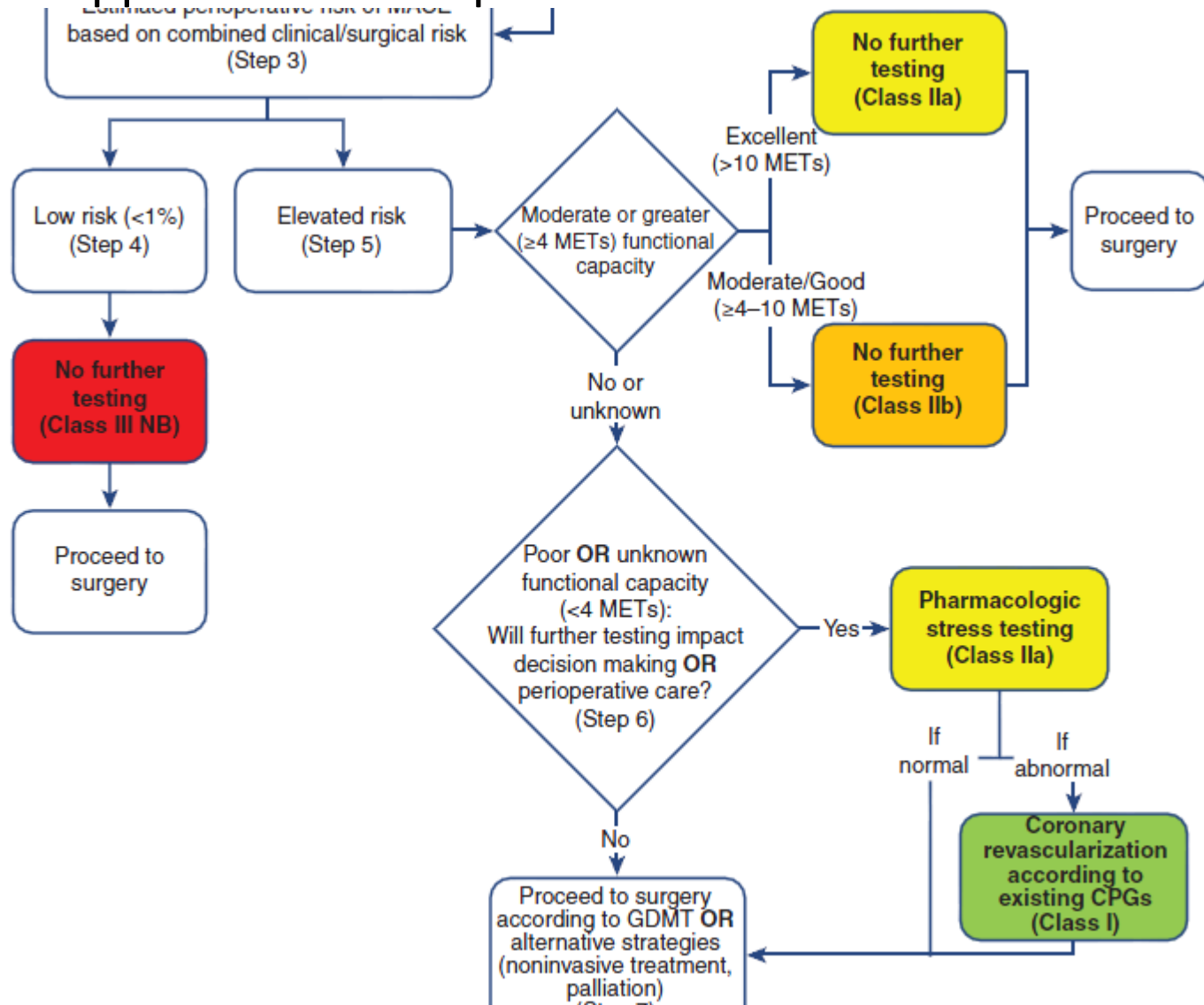
Antibiotic Prophylaxis

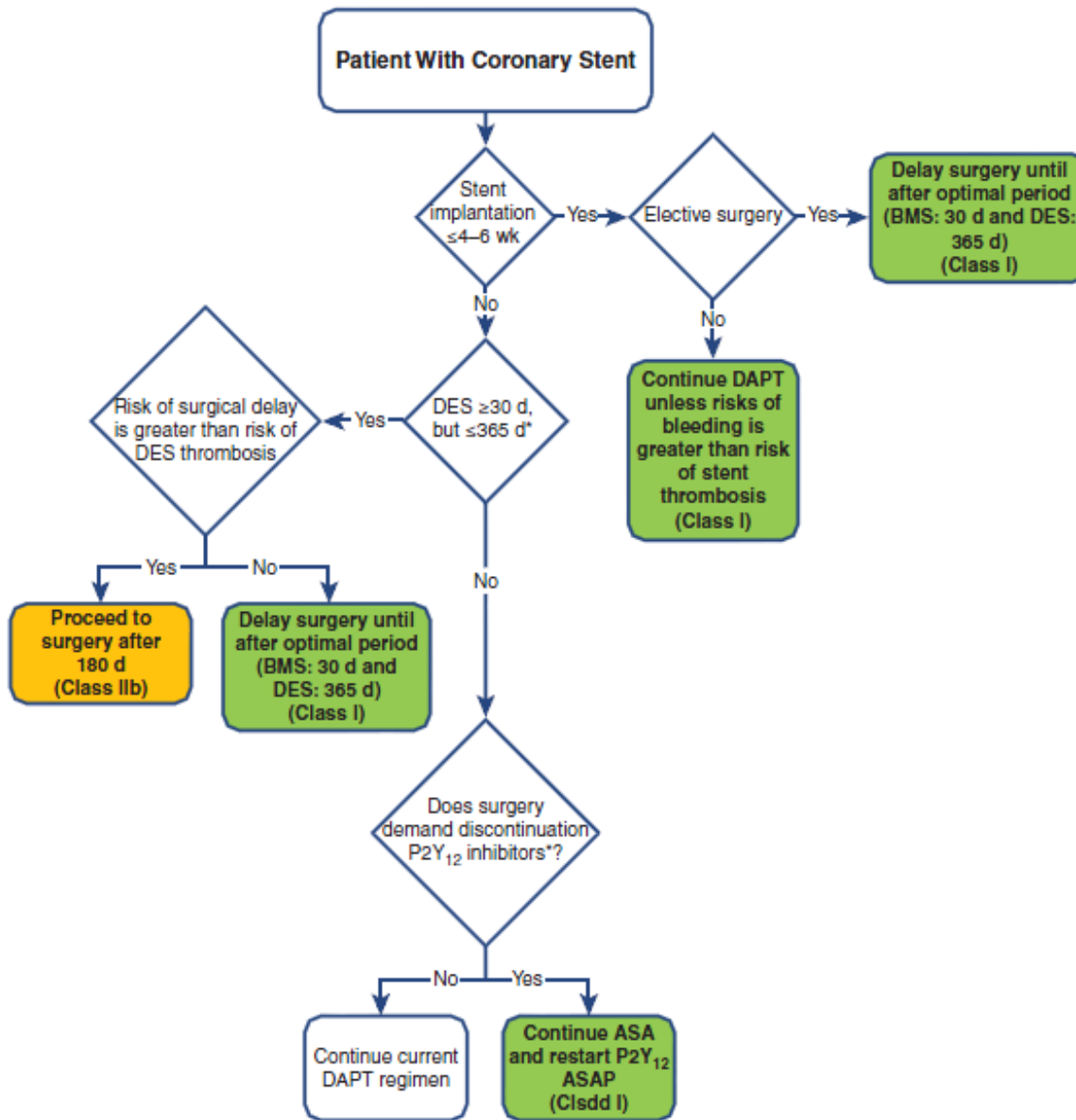
# Stepwise Approach to Perioperative Cardiac Assessment for CAD





# Stepwise Approach to Perioperative Cardiac Assessment for CAD





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# Important Information to be Determined in CIED

Reason for placement

Device type, manufacturer, model

Date of last interrogation and results (6 months for defibrillator, 12 months for pacemaker)

Is the patient pacemaker dependent?

Device programming and response to magnet

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# Hypertension

- postpone elective surgery

sustained systolic blood pressure of  $>200$  mm Hg  
or diastolic blood pressure of  $>110$  mm Hg

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# Potential Risk Factors for Perioperative Pulmonary Complications

## Patient Factors

**Older age**  
**Smoking**  
**Chronic obstructive pulmonary disease**  
**Obesity**  
**Obstructive sleep apnea**

## Surgical Factors

Incisions close to the diaphragm (e.g., thoracic, upper abdominal procedures, abdominal aortic aneurysm repair)  
Longer duration procedures  
General (vs. neuraxial, regional) anesthesia

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# Endocrine Disease

- Diabetes Mellitus
- Thyroid and Parathyroid Disorders
- Adrenal Disorders
  - Pheochromocytoma

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# Other Organ Systems and Conditions

- Rheumatoid arthritis (RA)
- Neurologic conditions;
  - History of Seizures
  - Parkinson's disease
  - History of Stroke
  - Spinal injury & denervation; quadriplegia
- Liver disease
- Renal disease

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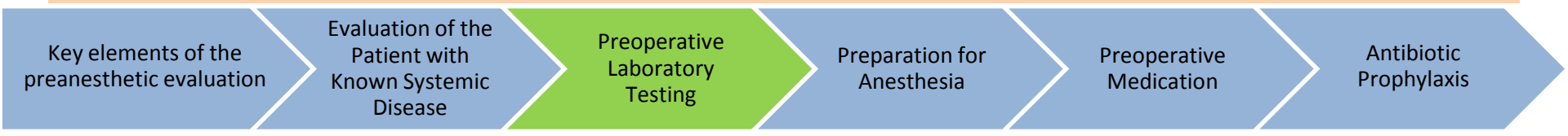
# Preoperative Laboratory Testing





# Preoperative Laboratory Testing

Factor	Comment
<b>ASA physical status</b>	ASA PS 1 patients generally do not require preoperative testing before low or intermediate risk surgeries
<b>Pregnancy testing</b>	Should be carried out in female patients of reproductive age unless patient has had hysterectomy or is confirmed to be postmenopausal
<b>Pulmonary function testing</b>	Is performed prior to lung resection and most cardiac surgeries. May be indicated if patient has significant pulmonary morbidity (e.g., morbid obesity, chronic lung disease, unexplained dyspnea)
<b>Chest x-ray</b>	Only indicated for patients with a history of significant lung or cardiac disease, malignancy, or radiation to the chest. No need to repeat if one has been completed <b>within 12 months</b> , results were within normal limits, and there has been no change in clinical status.
<b>Serum chemistries, complete blood count, coagulation profile</b>	No need to repeat <b>within 1 month</b> if results are within normal limits, there has been no change in clinical status, and the patient is not on an anticoagulant or antiplatelet agent (e.g., warfarin, clopidogrel)
<b>Cataract surgery, endoscopy procedures, other low-risk surgeries</b>	Blood tests, ECG, chest x-ray are generally not indicated unless the patient's clinical history or physical examination warrants specific cause for concern



# Preparation for Anesthesia



# Preparation for Anesthesia

## Fasting Guidelines

## Pharmacologic Agents to Reduce the Risk of Pulmonary Aspiration

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# Fasting Guidelines

Ingested Substance	Minimum Fasting Period (hours)
Clear liquids (water, carbonated beverages, tea, black coffee)	2
Breast milk	4
Infant formula	6
Nonhuman milk	6
Light meal (toast, clear liquids)	6
Heavy meal (fatty foods)	8

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# Drugs Used to Reduce Risk of Pulmonary Aspiration

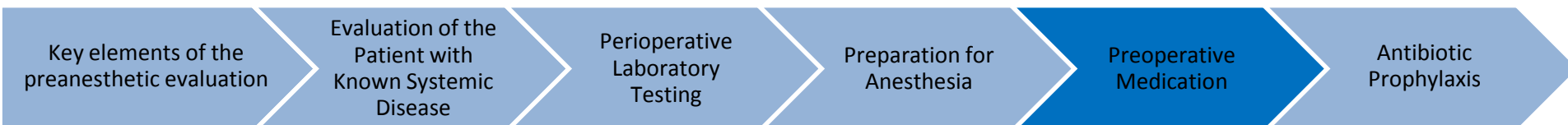
Drug	Onset	Effect	Comment
<b>Antacids (e.g., sodium citrate, aluminum or magnesium hydroxide, calcium carbonate)</b>	15–30 min	Raise gastric pH	Nonparticulate antacids (sodium citrate) do not cause pulmonary damage if aspirated, in contrast to particulate antacids (calcium carbonate, aluminum hydroxide)
<b>Histamine-2 receptor antagonists (e.g., ranitidine, famotidine)</b>	60 min	Reduce gastric volume Increase gastric pH	
<b>Proton pump inhibitors (e.g., omeprazole, pantoprazole)</b>	30 min	Reduce gastric acid secretion Reduce gastric volume	Block proton pump on gastric parietal cells
<b>Prokinetic agents (e.g., metoclopramide)</b>	15–30 min	Increase gastric motility Increase gastroesophageal sphincter tone	Useful for patients with known or suspected large gastric volume or delayed gastric emptying, such as obese patients, parturients, and diabetics Contraindicated in patients with a known bowel obstruction and should be used with caution in the elderly, because they are more likely to experience side effects such as confusion and drowsiness

# Preoperative Medication



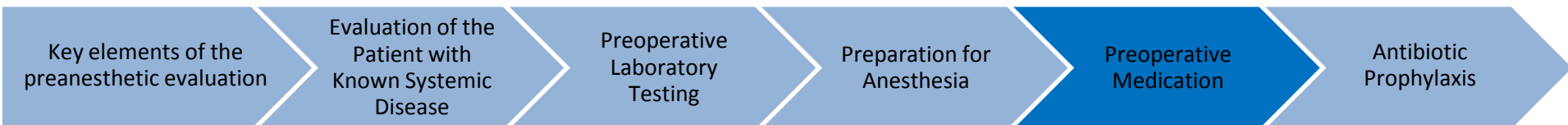
# Preoperative Medication

- Benzodiazepines
  - Midazolam -> rapid onset (1 - 2 mins) , relatively short half-life (1 - 4 hrs)
- Antihistamines
  - Diphenhydramine ->
- Antisialagogues
  - Glycopyrrolate



# Preoperative Medication

- Antiemetics
  - Serotonin antagonists ; ondansetron
  - Phenothiazines; perphenazine
  - Butyrophenones; droperidol
  - Antihistamines; dimenhydrinate





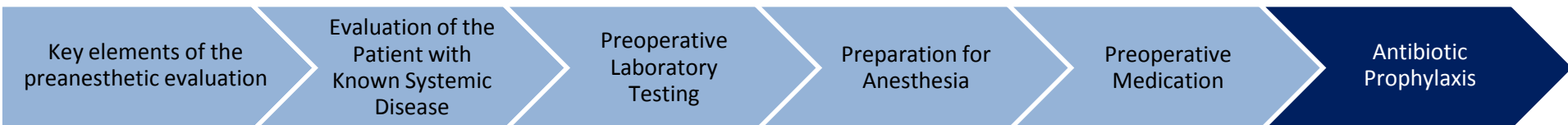
# Pre-emptive Analgesia

- Neuraxial techniques
- Infiltration with local anesthetics,
- Intravenous agents ; ketamine or opioids
- Gabapentin or pregabalin

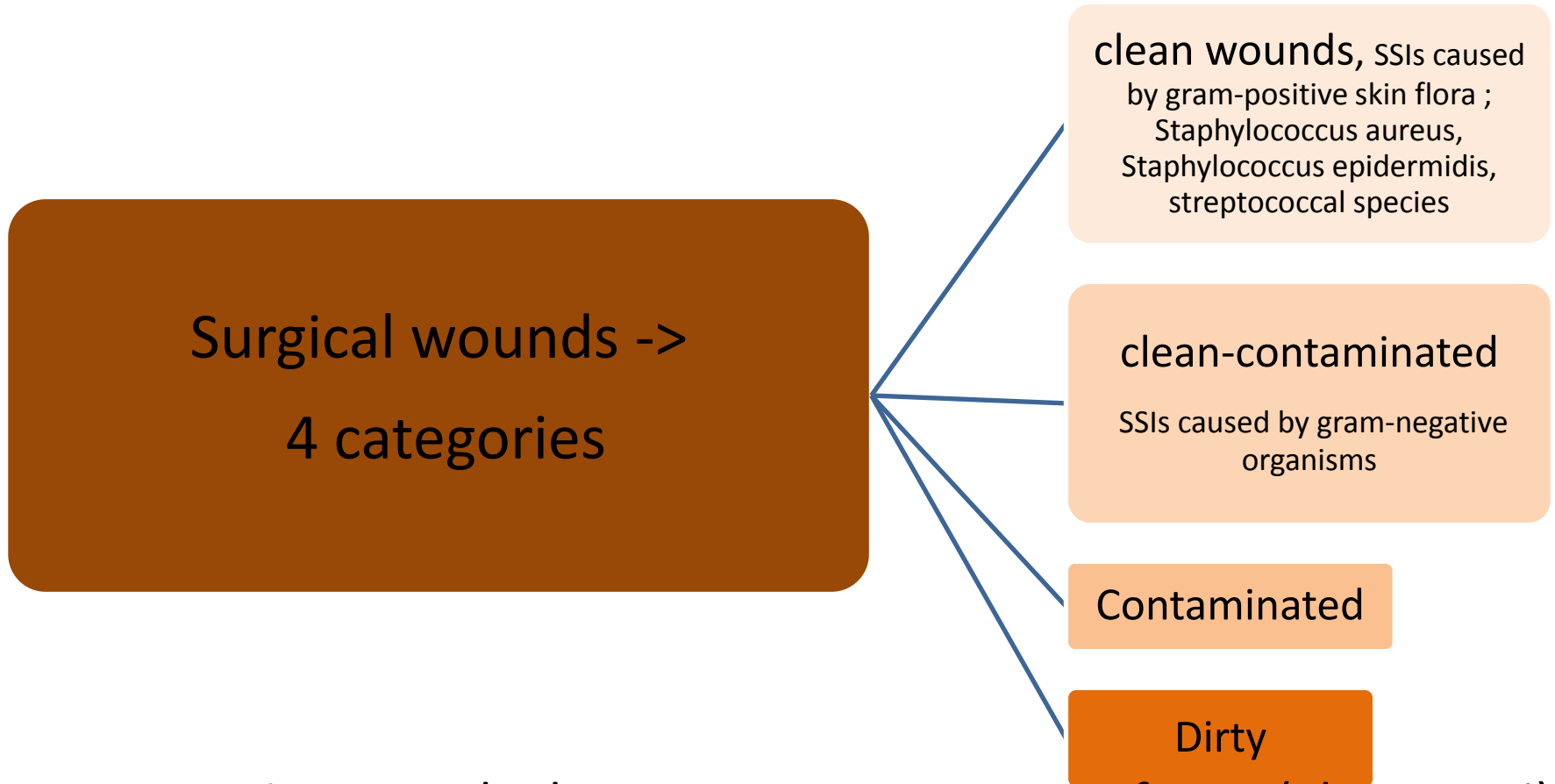
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# Antibiotic Prophylaxis



# Surgical site infections (SSI) 2% to 5%



*S. aureus* is currently the most common cause of SSIs, (about 30%)

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# Antibiotic Prophylaxis

initial dose of 2 g;  
3 g for pts weighing  
 $\geq 120$  kg

**Cefazolin**

Penicillin allergy

**Clindamycin  
or  
Vancomycin**

recommended in  
blood loss is excessive  
( $>1,500$  mL)

**Redosing**

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Name..... Age.....Ward..... HN.....AN..... Date.....Op.Room.....	Wt.....kgs, Ht.....cms, BMI..... V/S at ward เวลา.....น. :T.....°C BP...../.....mmHg ,PR.....b/m, RR.....b/m <u>General appearance :</u> Conscious : <input type="checkbox"/> alert <input type="checkbox"/> lethargic/response to pain <input type="checkbox"/> unable to response <input type="checkbox"/> GCS score..... Limitation ROM of neck : <input type="checkbox"/> No <input type="checkbox"/> Yes Nose : <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal..... <u>Airway assessment :</u> Mallampati Grade : <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 Thyromental distance : <input type="checkbox"/> > 6cm. <input type="checkbox"/> < 6cm Mouth opening : <input type="checkbox"/> >3 cm. <input type="checkbox"/> <3cm. Prominent incisor : <input type="checkbox"/> No <input type="checkbox"/> Yes Upper Lip bite test : Class <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <u>Oral/ Dental :</u> <input type="checkbox"/> Normal <input type="checkbox"/> ฟันหน้ายื่น <input type="checkbox"/> ฟันโยก <input type="checkbox"/> ฟันผุ <input type="checkbox"/> ฟันได้รับการบูรณะ ด้วยวัสดุต่างๆ <input type="checkbox"/> ฟันหลอ/ฟันห่าง <input type="checkbox"/> ทำครอบฟัน <input type="checkbox"/> มีรากฟันเทียมฝังแน่น <input type="checkbox"/> มีฟันปลอมถอดได้ <input type="checkbox"/> มีฟันปลอมถอดไม่ได้ <input type="checkbox"/> ใส่อุปกรณ์จัดฟัน <input type="checkbox"/> advice risk of dental injuries	<u>CBC</u> : Hb.....%Hct.....% Plt..... <u>Electrolyte</u> : Na.....K..... Cl.....CO <sub>2</sub> ..... BUN.....Cr.....FBS.....mg% <u>Coagulogram</u> : PT.....INR..... PTT.....ratio.....,TT.....ratio..... Other LAB.....
<u>Diagnosis and Operation</u> Dx..... Operation.....		<u>Other investigations</u> EKG (date)..... <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal ..... Echo (date)..... <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal..... CXR (date)..... <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal .....
<u>History</u> <u>Known Disease</u> : <input type="checkbox"/> No <input type="checkbox"/> Yes : <input type="checkbox"/> DM <input type="checkbox"/> HT <input type="checkbox"/> DLP <input type="checkbox"/> HD <input type="checkbox"/> CKD <input type="checkbox"/> Others..... Medications.....  <u>Pregnancy</u> : <input type="checkbox"/> No <input type="checkbox"/> Yes IUP.....wks. <u>Smoking</u> : <input type="checkbox"/> No <input type="checkbox"/> Quit smoking <input type="checkbox"/> Yes.....pack-yrs. <u>Alcohol</u> : <input type="checkbox"/> No <input type="checkbox"/> Yes..... <u>Allergic History</u> : <input type="checkbox"/> No <input type="checkbox"/> Yes..... <u>Family History</u> : <input type="checkbox"/> No <input type="checkbox"/> Yes..... <u>Previous Anesthesia</u> : <input type="checkbox"/> No <input type="checkbox"/> Yes : Op & Type of Anesth. & Date ..... .....	<u>Difficult intubation expected</u> : <input type="checkbox"/> No <input type="checkbox"/> Yes <u>Artificial airway</u> : <input type="checkbox"/> None <input type="checkbox"/> ETT <input type="checkbox"/> TT <u>Oxygen therapy</u> : <input type="checkbox"/> None <input type="checkbox"/> Cannula <input type="checkbox"/> Face Mask <input type="checkbox"/> Mask with bag <input type="checkbox"/> Ventilator : FiO <sub>2</sub> .....TV.....RR.....PEEP.....	<u>Blood Preparation</u> : PRC.....unit FFP.....unit Plt.....unit Cryo.....unit Others..... <u>ICU Post Op Plan</u> <input type="checkbox"/> No <input type="checkbox"/> Yes, plan ICU..... <input type="checkbox"/> ย้าย Ward..... NPO : .....hrs
<u>Problem List</u> 1..... 2..... 3..... 4..... 5.....	ASA Physical Status : 1 2 3 4 5 6 E Functional Class (NYHA) : I II III IV <u>Anesthetic Planning</u> : <input type="checkbox"/> GA with ETT <input type="checkbox"/> Undermask <input type="checkbox"/> LMA <input type="checkbox"/> TIVA <input type="checkbox"/> Sedation <input type="checkbox"/> SA <input type="checkbox"/> EA <input type="checkbox"/> BB <input type="checkbox"/> PNB <input type="checkbox"/> LA <input type="checkbox"/> MAC <u>Advice Post op Pain control</u> : <input type="checkbox"/> IV <input type="checkbox"/> Intrathecal Opioid <input type="checkbox"/> PNB <input type="checkbox"/> PCA <input type="checkbox"/> PCEA <u>Advice Risk of Anesthesia</u> : <input type="checkbox"/> ผู้ป่วย <input type="checkbox"/> ญาติ เกี่ยวข้องเป็น..... <input type="checkbox"/> ข้าพเจ้าได้รับทราบข้อมูล คำแนะนำในการปฏิบัติตน และภาวะแทรกซ้อนที่อาจเกิดขึ้น จากการระงับความรู้สึกในครั้งนี้ เป็นที่เข้าใจแล้ว ลายมือชื่อ.....ผู้ป่วย / ญาติ ลงชื่อ...../.....ผู้ให้ข้อมูล	
		วันที่...../...../.....

# References

- Clinical Anesthesia Fundamentals, Paul G. Barash, Chapter 16: *Preoperative Evaluation and Management* , 8<sup>th</sup> ed, 2017.
- Basic of anesthesia, Ronald D. Miller, Chapter 13: *Preoperative Evaluation and Medication*, 7<sup>th</sup> ed, 2018.
- Anesthesiology cases, John F. Butterworth, Chapter 14: *Preoperative Assessment Premedication & Perioperative Documentation*, 2020.