IF YOU RECEIVED THIS FACSIMILE IN ERROR, PLEASE CALL 604-875-4077 IMMEDIATELY

VA: VGH / UBCH / GFS
VC: BP / Purdy / GPC

ORDERS

ADDRESSOGRAPH

COMPLETE OR REVIEW ALLERGY STATUS PRIOR TO WRITING ORDERS

PACU ORDERS: PATIENTS WITH DIAGNOSED OR SUSPECTED SLEEP APNEA

(items with check boxes must be selected to be ordered)

Date: ____________________ Time: ____________

Diagnosis & PAP therapy

☐ ***Diagnosed*** sleep apnea
- ☐ **severe**
- ☐ **moderate**
- ☐ **mild**
- ☐ ***unknown severity***

- ☐ **on CPAP** preoperatively
- ☐ **on BiPAP** preoperatively

→ **apply** device **in PACU if drowsy/sleeping** (BiPAP therapy: Anesthesiologist to complete BiPAP orders)

- ☐ **not on PAP** preoperatively (☐ **non-compliant**, **or** ☐ **not recommended**)

or

☐ ***Suspected*** sleep apnea → ***sleep apnea assessment required*** →
- ☐ referred to **UBC Sleep Disorders Program**, **or**
- ☐ instructed to see **GP** for further arrangements

☐ **Respirology consult*** for assessment and treatment if:
- ☐ **PAP** therapy **newly required postoperatively**, **or**
- ☐ hypoxemic or hypercarbic **respiratory failure**

*as long as the patient remains in a monitored bed, the Respirology consult does not necessarily have to occur in the PACU

PACU sleep apnea protocol

- semi-upright or lateral **position**, **PAP** application if ordered & **monitor** for respiratory events
- **extended PACU stay:**
  - → for at least **1 h after standard PACU discharge criteria met** (this requirement elapses after 3 hrs of post-extubated stay in the PACU)
    - ☐ 1 h extended stay **waived** (only if Baseline Risk not increased - see reverse side)

    and
  - → for at least **1 h after last respiratory event** (unless transferred to a monitored bed),

    and
  - → ☐ until **spinal anesthesia regressed below surgical incision** (order if pain management challenge expected, unless transferred to a monitored bed)
- **prior to transfer from PACU:**
  - → **notify Anesthesiologist** of:
    - **respiratory events** (apneas of at least 10 s, RR less than 8/min, desaturations to less than 90%, or airway obstruction interventions)
    - **significant opioid requirement &/or sedation level**
    - unstimulated **baseline room air SpO_2 less than 90% &/or $PaCO_2$ more than 50 mm Hg**
      - ↳ O_2 supplementation may prolong apneas, exacerbate hypercapnea & hinder detection of respiratory deterioration by SpO_2
  - → obtain **discharge clearance from Anesthesiologist** (not required if 1 h extended PACU stay waived by Anesthesiologist)
  - → **contact Respiratory Therapy** for follow-up of **all inpatients on PAP therapy**

Safe transfer of care: Consider Baseline Risk and Postoperative Indicators (see reverse side)

- **Baseline Risk:**
  - ☐ **significantly increased** → **monitored bed** (regardless if Postoperative Indicators present or not)
  - ☐ **not significantly increased** → **monitored bed if Postoperative Indicators present** (use clinical judgment)

Final decision regarding appropriate postoperative disposition made by Anesthesiologist, after getting report from PACU Nurse

______________________ ______________________ __________

Anesthesiologist Signature | Printed Name | College ID

STOP-Bang Questionnaire: Screening Tool for OSA

		Yes	No
S	Do you ***snore*** loudly (loud enough to be heard through closed doors)?	☐	☐
T	Do you often feel ***tired***, fatigued, or sleepy during daytime?	☐	☐
O	Has anyone ***observed*** you stop breathing during your sleep?	☐	☐
P	Do you have or are you being treated for high blood ***pressure***?	☐	☐
B	***BMI*** > 35 kg/m^2?	☐	☐
A	***Age*** > 50 years old?	☐	☐
N	***Neck*** circumference > 40 cm?	☐	☐
G	Male ***gender***?	☐	☐

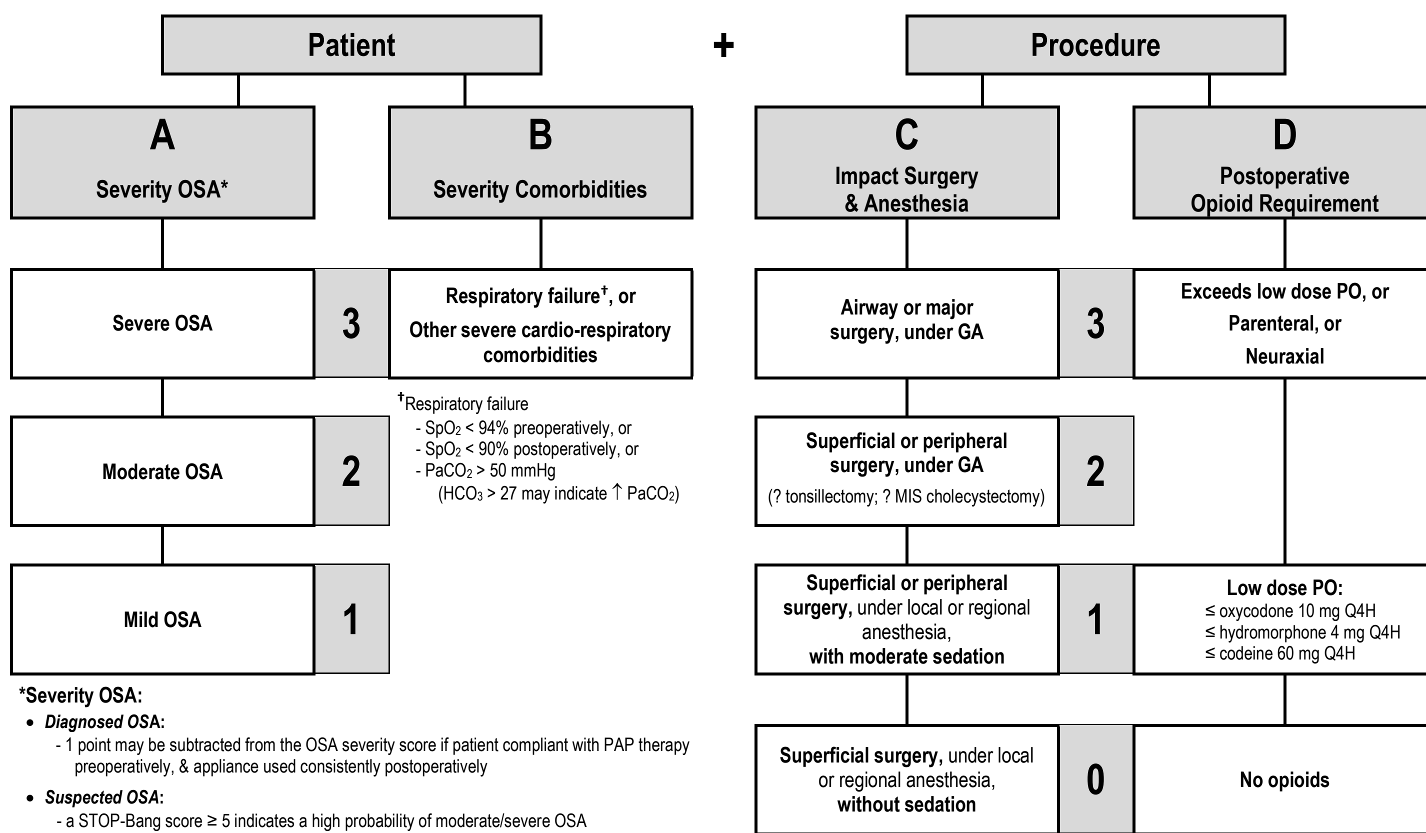
Total "yes" ≥ 5: high probability of moderate/severe OSA

(Chung F, et al. STOP Questionnaire. A Tool to Screen Patients for OSA. Anesthesiology 2008; 108: 812–21)
(Chung F, et al. High STOP-Bang score indicates a high probability of OSA. *Br J Anaesth.* 2012; 108: 768–75)

Postoperative risk of complications from OSA: Baseline Risk & Postoperative Indicators

A. Baseline Risk Score: add greatest score under either column A or B, to greatest score under either column C or D

= adaptation of the OSA scoring system proposed by the 2006 ASA Task Force on the Perioperative Management of OSA
- can be predicted preoperatively & updated postoperatively
- meant only as a guide, & clinical judgment should be used to assess the risk of an individual patient



***Severity OSA:**

- ***Diagnosed OSA*:**
  - 1 point may be subtracted from the OSA severity score if patient compliant with PAP therapy preoperatively, & appliance used consistently postoperatively
- ***Suspected OSA*:**
  - a STOP-Bang score ≥ 5 indicates a high probability of moderate/severe OSA
  - severity assumed to be moderate, unless marked ↑ BMI or neck circumference, or history of apneas that are frightening to the observer, or patient regularly falls asleep within minutes after being left unstimulated, in which case patient should be treated as though s/he has severe OSA

Transition to opioid pain management after regional anesthesia:
If severe pain is expected to occur when regional anesthesia wears off in a patient with sleep apnea, the transition to opioid pain management should ideally occur in a monitored setting

Baseline Risk Score	Postoperative Risk	Minimum Observation Level
5-6	(?) significantly ↑	monitored bed#
4	(?) ↑	ward
2-3	(?) not ↑	home

#continuous pulse oximetry & possibility of early nursing intervention, e.g. PACU, SDU or other Critical Care Unit

B. Postoperative Risk Indicators (monitored bed indicated, irrespective of Baseline Risk Score):

- **recurrent respiratory events** (apneas ≥ 10s, or bradypneas < 8/min, or desaturations to < 90%, or airway obstruction interventions)
- **newly required PAP therapy**
- **respiratory failure** (baseline room air SpO_2 < 90%, or increasing FiO_2 requirement, or $PaCO_2$ > 50 mmHg)
- **significant risk of myocardial ischemia or dysrhythmia** (cardiac monitoring indicated)
- **opioid or sedative requirement not stabilized** (including uncontrolled pain or delirium)
- **pain-sedation mismatch** (high pain & sedation scores concurrently)