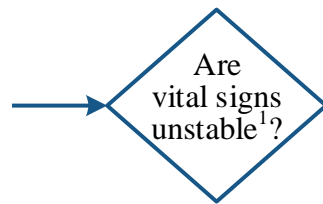


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Note: This algorithm is used by Acute Care Procedures Team

Patient pending CVC placement [internal jugular (IJ), subclavian or femoral]. All requests placed to Infusion Therapy.



Assess patient history

No

Yes

History of arrhythmias (i.e., atrial fibrillation)

- Discuss with primary team and on-call Vascular Surgery
- Consider deferring procedure especially if new-onset or unstable **or**
- Refer to Vascular Surgery, if needed

History of pacemaker

- See [Implanted Cardiac Pacemaker and Defibrillator Management algorithm](#)
- Line must be placed contralateral to pacemaker. Consult Cardiac Catheterization Lab, Vascular Surgery or IR if only ipsilateral side of pacemaker available.

Current anticoagulation medication use

See [Peri-Procedure Management of Anticoagulants algorithm](#) prior to procedure

History of blood clots to upper extremity central veins (axillary, IJ, subclavian, SVC)

- Page thoracic fellow/Vascular Surgery to discuss the following:
- Safety of treatment
 - Obtaining further imaging [venous ultrasound duplex study, CT chest obtained within 30 days (contact radiology for vasculature review)]
 - If contralateral site is free of thrombus, then APP may attempt
 - Referring case to Vascular Surgery, if needed

History of radiation, surgery, trauma or lesion/mass/wound to neck, chest or access site, or any visible anatomical variants that may obscure landmarks

Consider contralateral site. If no other site available, consider utilizing alternate site for access after discussion with on-call Vascular Surgery and primary team.

- Patient with renal disease², with or without dialysis **and/or**
- Platelets < 20 K/microliter

- Consider IJ placement
- Consult Vascular Surgery if platelets < 10 K/microliter

Patient has no pertinent history or contraindications to procedure

Proceed to **Patient Evaluation** on [Page 2](#). Also, find information for patients needing simultaneous port removal on [Page 3](#).

Hemodynamically unstable¹/ new onset symptoms

- Inform primary team
- Send to EC for evaluation with nursing escort

Symptoms of severe cough, chest pain, shortness of breath, fever, vomiting, diarrhea, etc.

- Contact primary team. If procedure cleared by primary team, discuss with Vascular Surgery.
- Consider having patient evaluated by EC or primary team

Coagulopathy Threshold

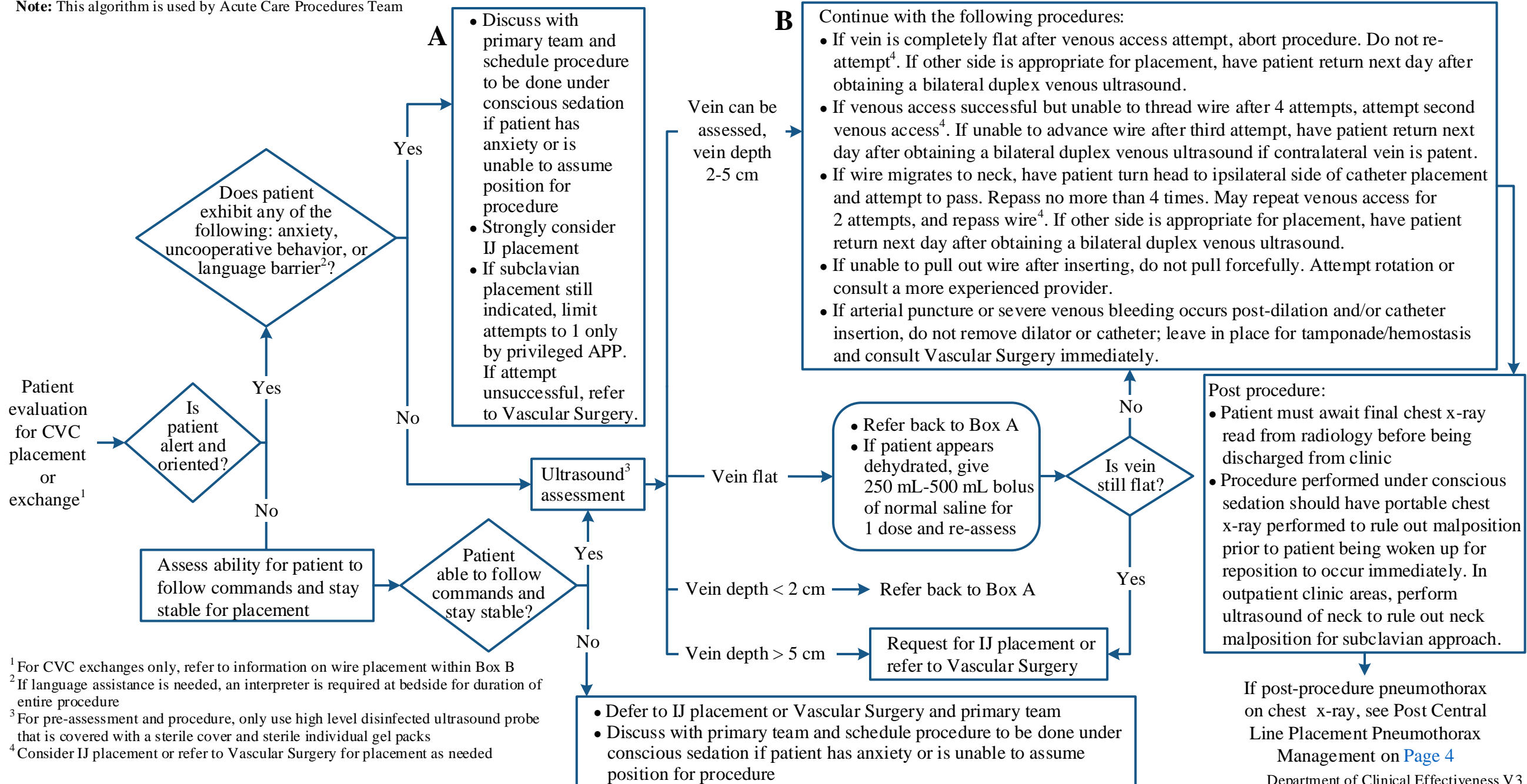
Procedure	Minimum platelet threshold	Threshold to infuse platelets during procedure	INR
IJ	20 K/microliter	10-20 K/microliter	2
Subclavian	30 K/microliter	20-30 K/microliter	2
Femoral	20 K/microliter	10-20 K/microliter	2

APP = Advanced Practice Provider IR = Interventional Radiology
 EC = Emergency Center SVC = superior vena cava

¹ Heart rate >110 bpm or < 60 bpm, oxygen saturation < 92% and systolic blood pressure < 95 mmHg or > 170 mmHg
² Stage 3B or higher with glomerular filtration rate < 45 mL/minute

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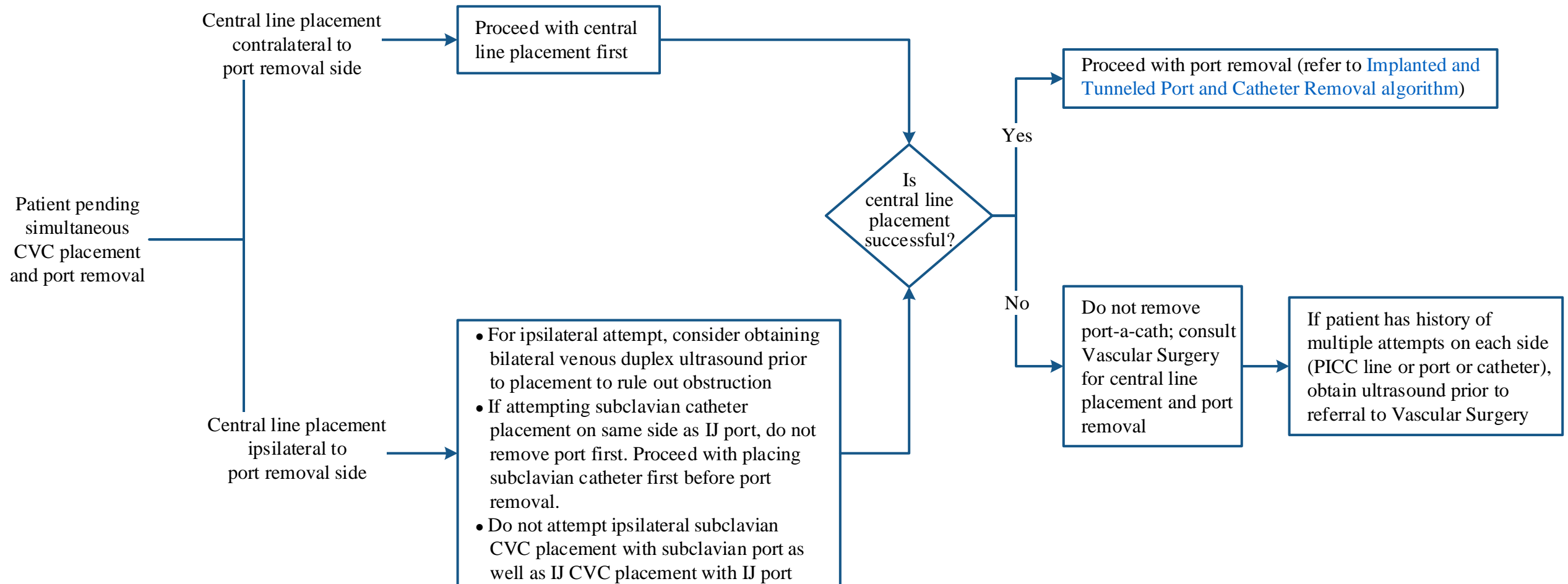
Note: This algorithm is used by Acute Care Procedures Team



¹ For CVC exchanges only, refer to information on wire placement within Box B
² If language assistance is needed, an interpreter is required at bedside for duration of entire procedure
³ For pre-assessment and procedure, only use high level disinfected ultrasound probe that is covered with a sterile cover and sterile individual gel packs
⁴ Consider IJ placement or refer to Vascular Surgery for placement as needed

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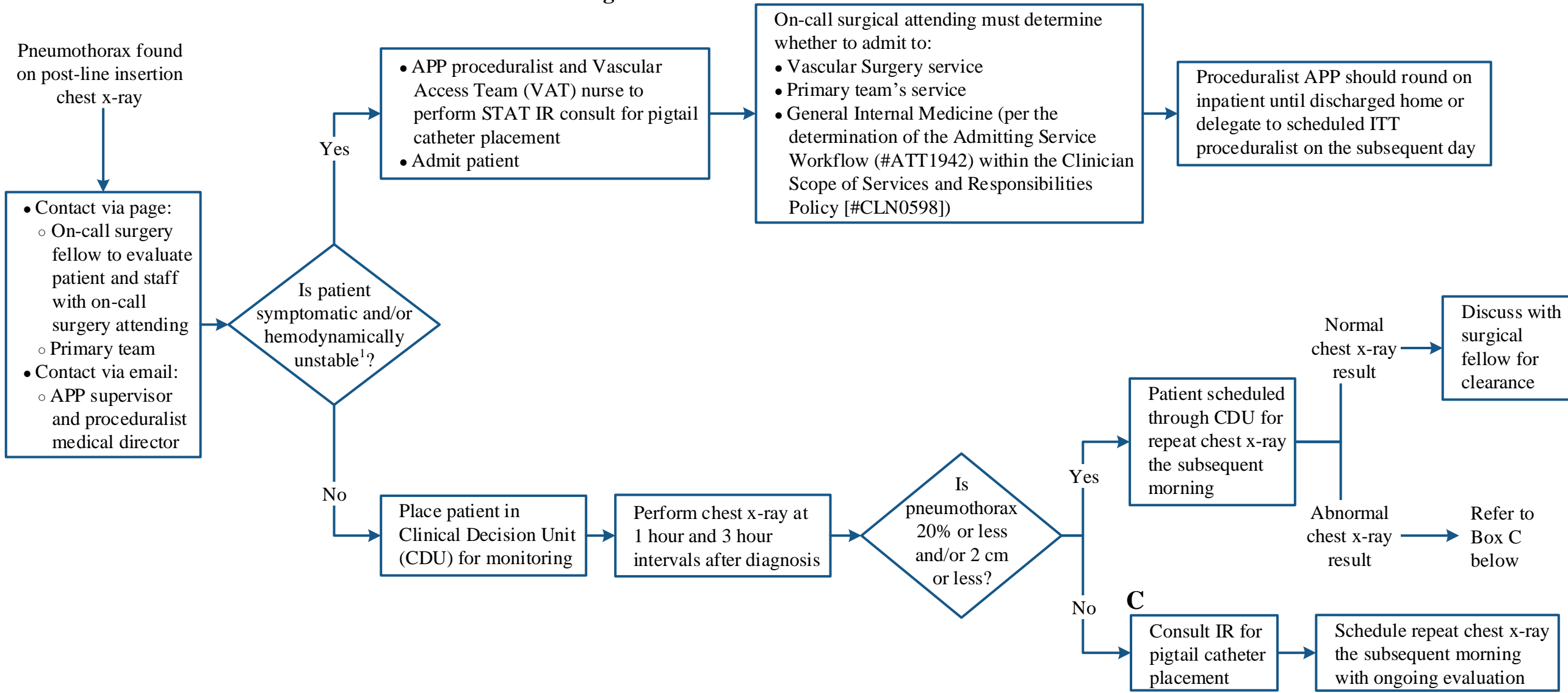
Note: This algorithm is used by Acute Care Procedures Team



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Post Central Line Placement Pneumothorax Management



¹ Heart rate > 110 bpm or < 60 bpm, oxygen saturation < 92% and systolic blood pressure < 95 mmHg or > 170 mmHg

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DEVELOPMENT CREDITS

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