Adult Implanted/Tunneled Port and Catheter Removal

Ensure patient has been placed on antibiotics. If not, contact primary team.

Thrombosis (if port still needed and patient is asymptomatic, start anticoagulation and do not remove port unless symptoms worsen)

Infection

Provider to assess:
- Vital signs¹ for fever or any signs of sepsis, erythema, fluctuance or drainage
- History of anticoagulation², chest x-ray, CT chest/abdomen/pelvis, upper extremity doppler ultrasound, and KUB
- Timing and location of device placement
- Patient history

Indication of infection or thrombosis?

Yes

No

Signs of infection?

Yes

Inspect site of port hub or catheter for significant signs of erythema, fluctuance or drainage

Remove port or catheter, send tip for culture, leave wound pocket open, and pack with iodoform or gauze
- Consult wound care, if needed
- Ensure wound care appointment in place prior to discharge from infusion therapy clinic or inpatient area

No

Proceed with closing site

Is catheter safe to remove?

Yes

Remove

See Page 3 for Bleeding During Removal and/or Post-Port Removal Assessment

No

Defer to vascular surgery for guidance to safely remove port

Patient pending tunneled catheter removal (subclavian, femoral, intraperitoneal, or internal jugular [IJ])

Coagulopathy Threshold

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Minimum platelet threshold</th>
<th>Threshold to infuse platelets during procedure</th>
<th>INR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port catheter removal</td>
<td>20 K/microliter</td>
<td>10-20 K/microliter</td>
<td>2</td>
</tr>
<tr>
<td>Tunneled catheter removal</td>
<td>20 K/microliter</td>
<td>10-20 K/microliter</td>
<td>2</td>
</tr>
</tbody>
</table>

¹Heart rate greater than 110 bpm or less than 60 bpm, oxygen saturation less than 92% and systolic blood pressure less than 95 mmHg or greater than 170 mmHg
²Refer to Peri-Procedure Management of Anticoagulants algorithm prior to procedure
³No pain and/or swelling

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson’s specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient’s care.

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Adult Implanted/Tunneled Port and Catheter Removal

Note: This algorithm is intended to be used by the Acute Care Procedures Team.

Port and catheter removal process

Subclavian

Port older than 3 years?

Yes

No

A

If outpatient, refer to outpatient port clinic for removal by surgeon
If inpatient, consult vascular surgery for removal
APP may consider to attempt removal if patient prefers. Refer to Box A if unable to remove port.

Remove port
If unable to pull catheter, place hub back in port pocket and suture close. Consult Vascular Surgery for removal in the operating room.

Yes

No

Attempt removal regardless of age of port
If unable to pull out port catheter, place port hub back in port pocket and resuture. Consult Vascular Surgery for removal in the operating room.

Tunneled

Confirm with patient and imaging history
Inspect for presence of second counter incision on abdomen or feel for cuff
Refer to Interventional Radiology

Non-tunneled

Prior to attempt, contact surgical fellow on-call to ensure availability to troubleshoot if needed
Experienced Advanced Practice Provider (APP) to perform or assist in removal

Tunneled central line catheter removal

Attempt removal
If unable to free tissue from cuff, utilize experienced APP
If unsuccessful, consult surgery fellow

Port and catheter removal

1. Do not perform a catheter exchange utilizing a port-a-cath
2. Patient must be supine for procedure
3. APP with greater than 1 year experience in port removal
Bleeding during port removal

- Hold pressure and immediately clamp bleeding tissue area with kelly or kocher clamp
- Place figure of eight stitch until hemostasis achieved
- Call surgery fellow if unable to control bleeding.

Note: Please pay attention to other end of vein and ensure hemostasis achieved at both ends.

See Post Port Removal below

Post port removal

- Review vital signs and assess wound for induration, erythema, fluctuance or drainage

Signs of infection?

Yes → Consult surgical fellow for bedside evaluation
- Notify primary team

Surgical fellow and primary team conference to decide antibiotic treatment

Is patient unstable?

Yes → Consider referral to EC for admission and further work-up

Discharge patient with oral antibiotics and have patient follow up with primary team

No → Discuss with primary team to coordinate follow-up

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SUGGESTED READINGS


This practice consensus statement is based on majority opinion of the Acute Care Services Department at the University of Texas MD Anderson Cancer Center for the patient population. These experts included:

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\(^T\) Core Development Team
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