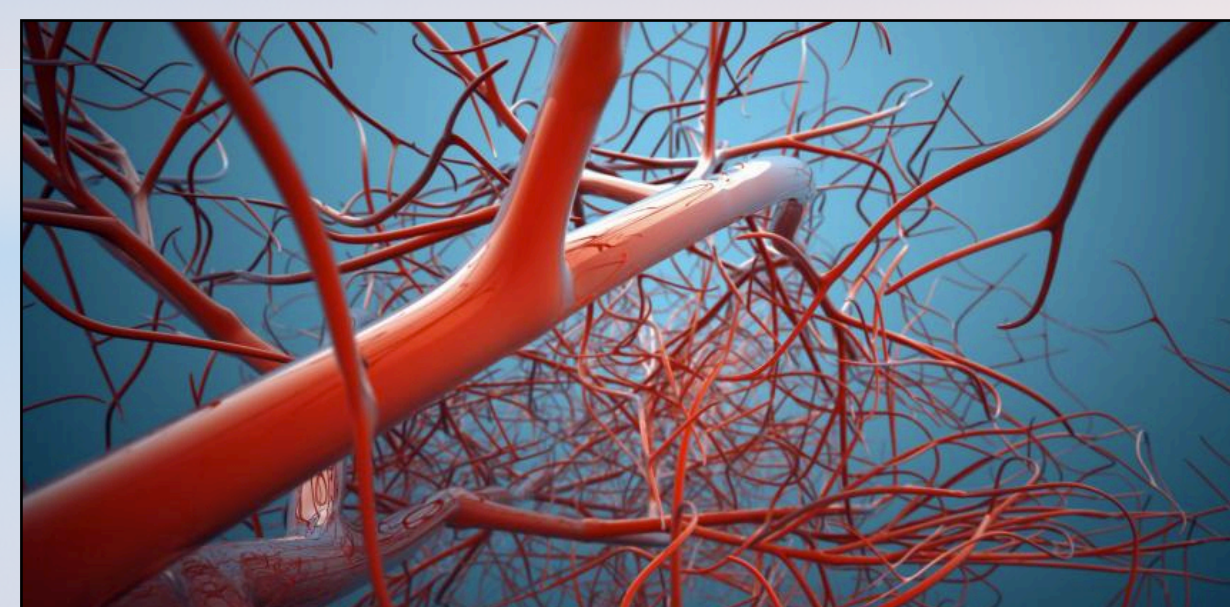


Pre-Operative and Post-Operative Checklist for Vascular Surgery Patients: Creating a Protocol

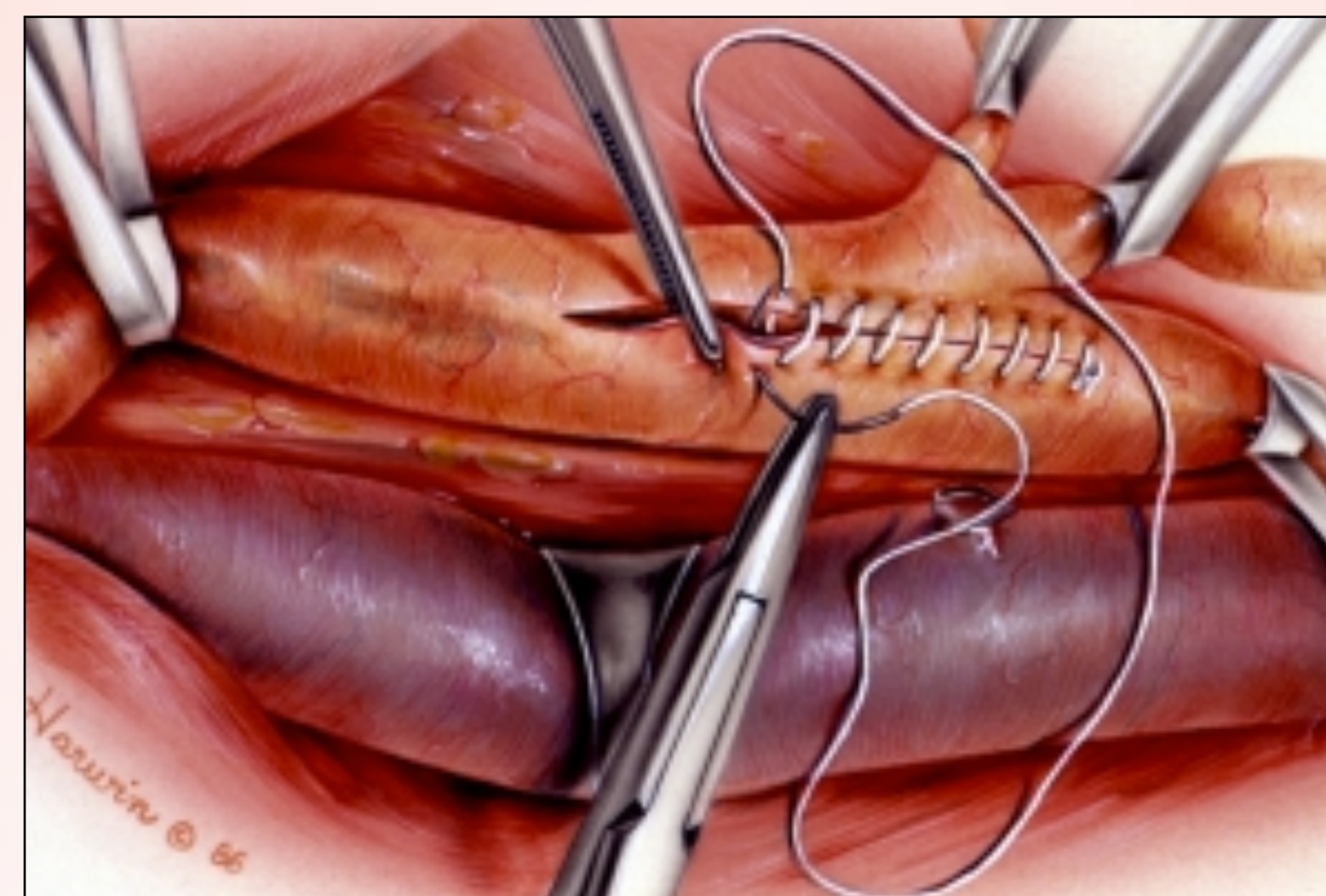
Hannah Morin-Roy, UNH Senior Nursing Student

Introduction

- Vascular surgeries are the reconstruction of artery or vein pathways to restore optimal blood flow to tissue suffering from vascular disease.¹
- Vascular treatments and surgeries include many different types of procedures, including amputations, carotid endarterectomies, repair of abdominal aortic aneurysms or aortic dissection, surgical bypass, and more.⁸
- Surgical site infections are infections that occur on part of the patient's body where a specific surgery occurred.⁵
- Currently, Maine Medical Center does not have a policy or protocol for vascular surgery patients to prevent the incidence of surgical site infections. Rather, certain units have bundles and checklists to follow prior to surgery.



(Vascular Surgery, n.d.)



(Surgical bypass and artery reconstruction, 2019).

Sources of Evidence

- “A program of patient surveillance for nasal carriage for MRSA, nasal and skin decolonization, preventing transmission to other patients, and thoughtful antibiotic prophylaxis usage is an effective strategy to reduce SSI.”²
- “Recently, chlorhexidine-alcohol has been compared with povidone-iodine in different surgical specialties, with results favoring chlorhexidine-alcohol.”³
- “The elements of the bundle were peri-operative normothermia, hair removal before surgery, the use of peri-operative antibiotic prophylaxis, and discipline in the operating room.”⁶
- “Application of peri-operative measures to reduce *S. aureus* nasal and skin colonization in conjunction with appropriate, bactericidal antibiotic prophylaxis, meticulous wound closure, and postoperative care to optimize patient host defense regulation mechanisms (eg, temperature, oxygenation, and blood sugar) can minimize SSI occurrence.”²

Conclusion

- Pre-operative and post-operative care for vascular surgery patients is essential to reduce the incidence of surgical site infections.
- Protocols should consist of steps and techniques utilized during pre-operative, peri-operative, and post-operative care. The data and research findings all consistently identify similar approaches to prevent surgical site infections, as listed below.
- It is recommended that Maine Medical Center should include these findings within a formal policy, and followed for each vascular surgery patient.

Recommendations for Clinical Practice

Pre-operative	Peri-operative	Post-operative
<ul style="list-style-type: none"> • MRSA screening & intranasal mupirocin for 3 days prior.² • Chlorhexidine baths for 3 days prior.³ • Antibiotic prophylaxis, broad spectrum for Gram Positive & Gram Negative organisms, 30-60 minutes pre-op.⁶ • Hair removal with clippers, not with a razor.⁶ 	<ul style="list-style-type: none"> • Thermoregulation for normal temperature of 37°C.⁶ • Monitor blood glucose levels routinely to keep them within normal limits.⁶ • Monitor pulse oximetry continuously to maintain levels greater than 95%.⁶ 	<ul style="list-style-type: none"> • Intranasal mupirocin for 2 days post-operatively.² • Meticulous and thorough wound care and surgical site cleansing.² • Dressing changes clean or sterile, either performed by treatment team or trained clinicians.²

PICOT

Do pre-operative and post-operative protocols reduce the incidence of surgical site infection in patients undergoing vascular surgery?