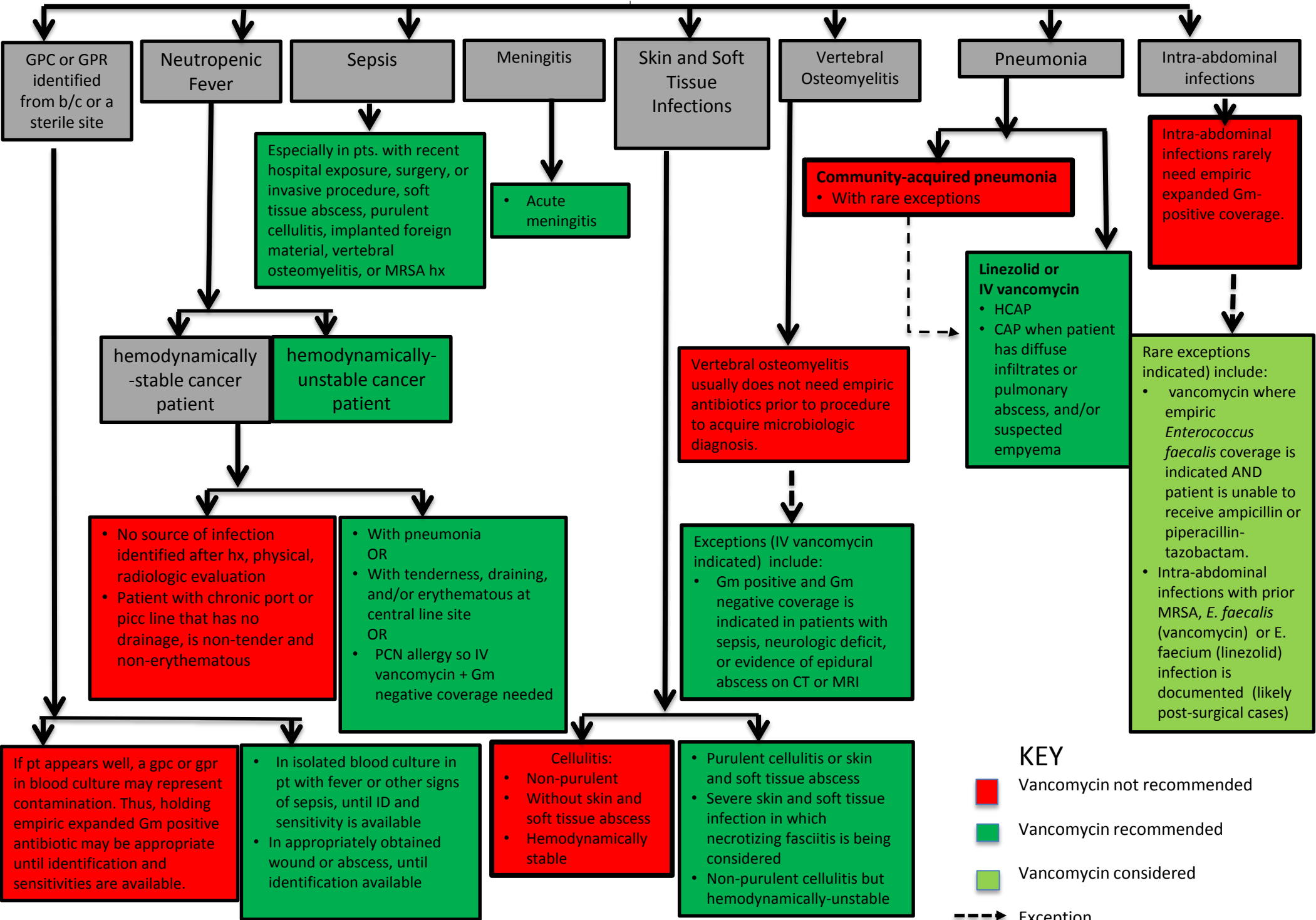


Why Decrease IV Vancomycin Use?

- Vancomycin is the top antibiotic ordered at NMH.
- CDC estimates up to 50% of antibiotics are inappropriate or unnecessary.
- U.S. multicenter retrospective study (Fridkin, et al.)
 - Among 183 acute care hospitals, 50% of antibiotics were prescribed for the following diagnoses:
 - Presumptive Gm+ infection
 - UTI
 - Community-acquired pneumonia
 - Sources of antibiotic errors for IV vancomycin among 36 hospitals:

Diagnosis	Drivers of Antibiotic Errors	%
Presumptive Gm+ infection	• No diagnostic culture was obtained around antibiotic initiation	9.2
	• No Gm+ isolate	21.6
	• MSSA isolated but vancomycin continued	4.9

**You are considering starting
empiric IV vancomycin or other expanded Gm + antibiotic**



KEY

- Vancomycin not recommended
- Vancomycin recommended
- Vancomycin considered
- - - Exception

Patient has received IV vancomycin >= 72 hours

Staphylococcus aureus (MRSA or MSSA) isolated from blood stream or sterile source

MRSA isolated from minor site of infection

No MRSA isolate identified.

Active serious MRSA infection documented at NHM or OSH in recently-transferred patient

Active serious MSSA infection documented at NHM or OSH in recently-transferred patient

Request provider assessment of sample quality and update of infection severity

Stop iv vancomycin except in rare exceptions (follow down)

In rare exceptions: continue IV vancomycin

MRSA isolate is deemed colonization or resolved infection. Stop antibiotic treatment.

Active MRSA infection. This is a candidate for de-escalation:

- Stop IV vancomycin.
- Select oral alternatives to IV vanc such as doxycycline, clindamycin, trimethoprim-sulfamethoxazole, linezolid based on sensitivities and allergies

Stop iv vancomycin. Order appropriate IV beta-lactam agent.

In cases of reported beta-lactam allergy, clarify history +/- obtain allergy consult.

Infectious disease syndrome needs Gm+ coverage (e.g. pneumonia) or isolated Gm + pathogen is sensitive to many agents including narrower agents, but patient appears to be unable to take alternative agents.

Culture-negative prosthetic valve endocarditis.

Two or more blood cultures drawn at separate times are + for the same weakly virulent Gram (+) organism*

* Examples include: coagulase negative *Staphylococcus* (CNS), *Corynebacterium* species, *Bacillus* species

Temporarily reorder iv vancomycin, clarifying new indication, while awaiting Allergy evaluation

IDSA guideline recommends IV vancomycin for patients presenting < 1 year after valve surgery

Two or more blood samples are likely to represent a true bacteremia, not contamination, if:

- A single species is found in > 1 blood culture
- Patient has an endovascular foreign body such as a pacemaker or port or central line

Reorder iv vancomycin, clarifying new indication

Recommend ID consult

Key ■ Stop IV vancomycin

Antibiotics with Expanded Gm Positive Coverage

Vancomycin: MRSA, MSSA, Streptococcus spp.,
Enterococcus faecalis.

Linezolid: MRSA, MSSA, Streptococcus spp.,
Enterococcus faecalis, *Enterococcus faecium*
See restricted antimicrobials.

Daptomycin: MRSA, MSSA, Streptococcus spp.,
Enterococcus faecalis, *Enterococcus faecium*.
See restricted antimicrobials.