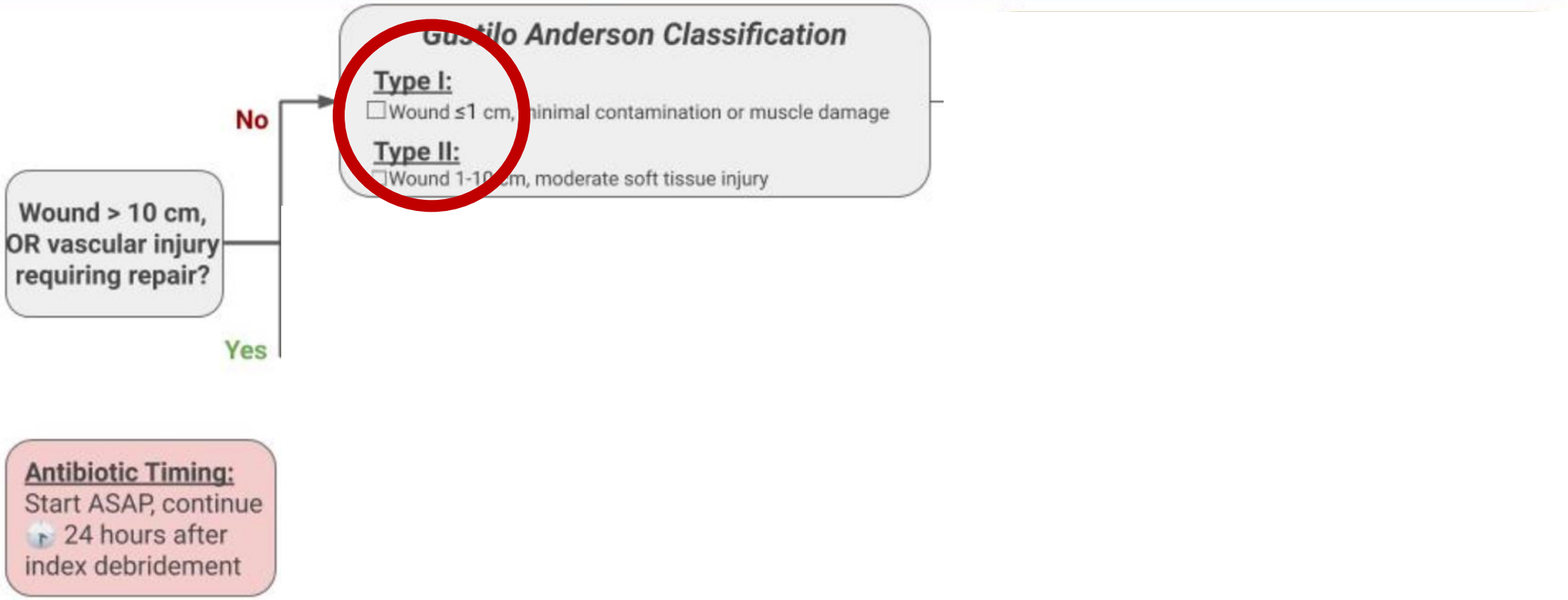
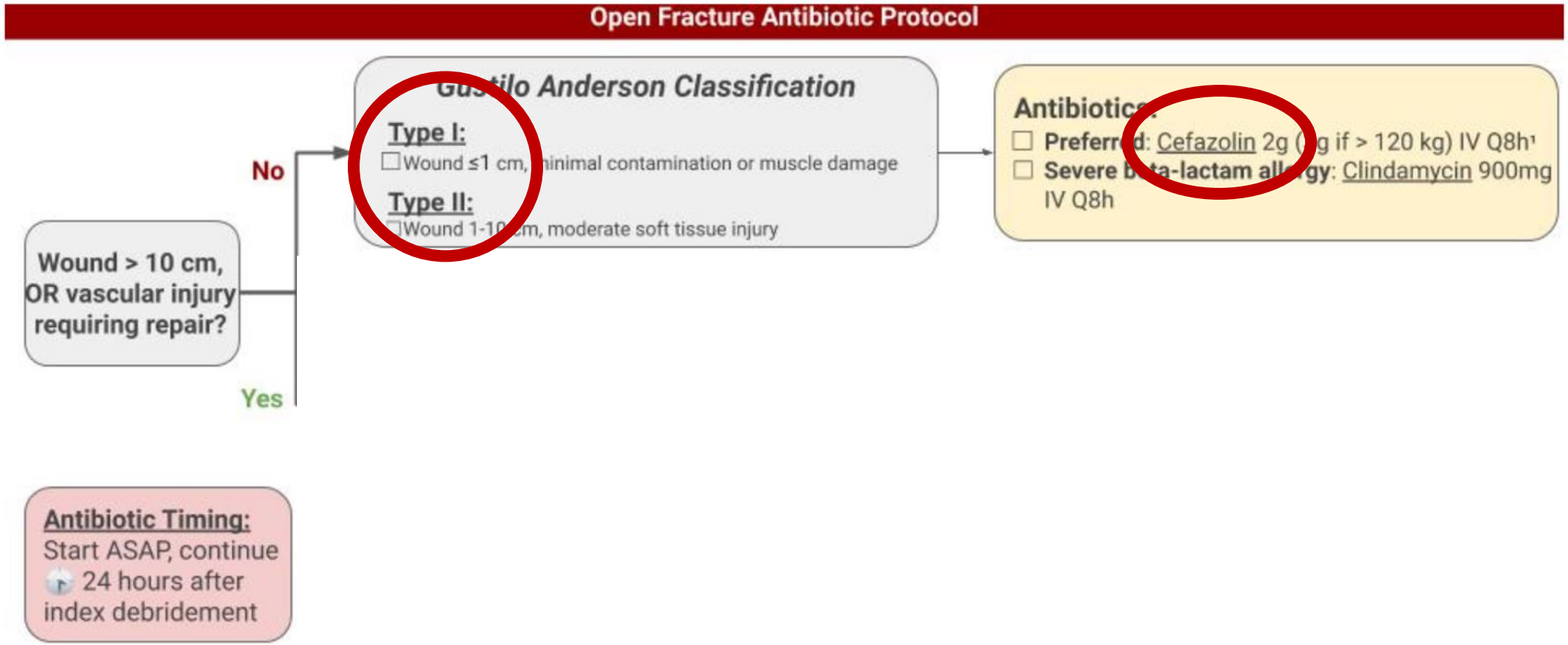
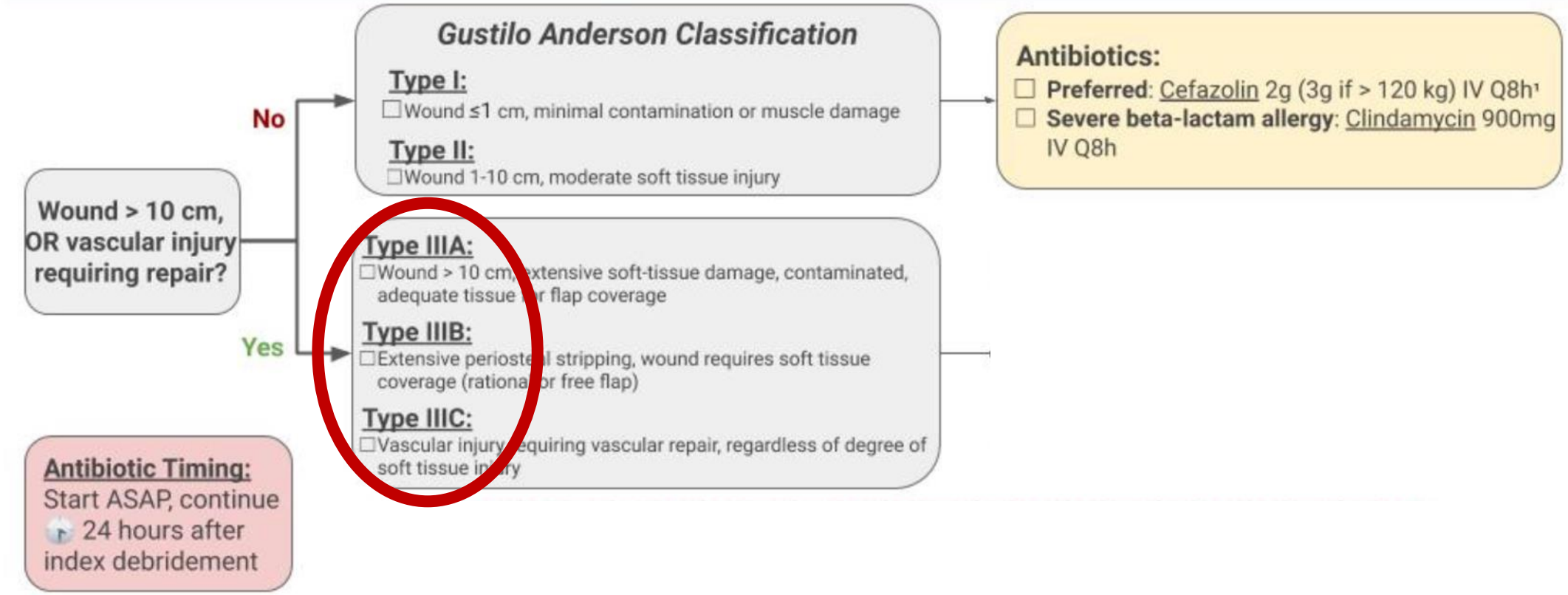
antibiotics

Open Fracture Antibiotic Protocol




Open Fracture Antibiotic Protocol
Wound > 10 cm, OR vascular injury requiring repair?
No
Yes
Gustilo Anderson Classification
Type I:
Wound ≤1 cm, minimal contamination or muscle damage
Type II:
Wound 1-10 cm, moderate soft tissue injury
Antibiotics:
Preferred: Cefazolin 2g (3g if > 120 kg) IV Q8h[1]
Severe beta-lactam allergy: Clindamycin 900mg IV Q8h
Antibiotic Timing:
Start ASAP, continue 24 hours after index debridement

Open Fracture Antibiotic Protocol



Open Fracture Antibiotic Protocol

Wound > 10 cm, OR vascular injury requiring repair?

No → *Gustilo Anderson Classification*

Type I:
☐ Wound ≤1 cm, minimal contamination or muscle damage

Type II:
☐ Wound 1-10 cm, moderate soft tissue injury

Antibiotics:
- ☐ **Preferred**: Cefazolin 2g (3g if > 120 kg) IV Q8h[1]
- ☐ **Severe beta-lactam allergy**: Clindamycin 900mg IV Q8h

Yes → *Gustilo Anderson Classification*

Type IIIA:
☐ Wound > 10 cm, extensive soft-tissue damage, contaminated, adequate tissue or flap coverage

Type IIIB:
☐ Extensive periosteal stripping, wound requires soft tissue coverage (rotational or free flap)

Type IIIC:
☐ Vascular injury requiring vascular repair, regardless of degree of soft tissue injury

Antibiotics:
- ☐ **Preferred**: Ceftriaxone 2g IV Q24h
- ☐ **Severe beta-lactam allergy**: Clindamycin 900mg IV Q8h + levofloxacin 500 mg IV Q24h[1]

Antibiotic Timing:
Start ASAP, continue 24 hours after index debridement

Open Fracture Antibiotic Protocol

Wound > 10 cm, OR vascular injury requiring repair?

No

Gustilo Anderson Classification

Type I:
- ☐ Wound ≤1 cm, minimal contamination or muscle damage

Type II:
- ☐ Wound 1-10 cm, moderate soft tissue injury

Antibiotics:
- ☐ **Preferred**: Cefazolin 2g (3g if > 120 kg) IV Q8h[1]
- ☐ **Severe beta-lactam allergy**: Clindamycin 900mg IV Q8h

Yes

Type IIIA:
- ☐ Wound > 10 cm, extensive soft-tissue damage, contaminated, adequate tissue for flap coverage

Type IIIB:
- ☐ Extensive periosteal stripping, wound requires soft tissue coverage (rational or free flap)

Type IIIC:
- ☐ Vascular injury requiring vascular repair, regardless of degree of soft tissue injury

Antibiotics:
- ☐ **Preferred**: Ceftriaxone 2g IV Q24h
- ☐ **Severe beta-lactam allergy**: Clindamycin 900mg IV Q8h + levofloxacin 500 mg IV Q24h[1]

Antibiotic Timing:
Start ASAP, continue 24 hours after index debridement

Exceptional Cases
- ☐ **Soil or Fecal Contamination**: Vancomycin 15 mg/kg IV q8-24h[2] + Ertapenem 1g IV Q24h[1]
- ☐ **Standing Water Contamination**: Piperacillin/Tazobactam (Zosyn) 4.5g IV Q6h[1,3]
- ☐ **Known MRSA Colonization**: Add Vancomycin 15 mg/kg IV Q8-24h[2]

antibiotics

administer as soon as possible – Patzakis 1974 / Lack 2015

time to AB more important than time to OT

duration:
max 72 hours or max 24 hours after wound closure

evidence for gram negative coverage weak

ADJUNCT only

most important: follow your hospital's protocol

antibiotics



wound cultures at first debridement

do not use for antibiotic guidance – does not correlate

most infections nosocomial

cultures at closure – correlate with development of infection

antibiotics

local antibiotics

growing evidence that effective

why did you rob the bank?



vancomycin powder
vanco/genta cement / beads
continuous local antibiotic perfusion – CLAP
iSAP / iMAP

the best antibiotic is surgical steel

