*** Antibiotic Coverage for Following Pathogens:**
(see following slide for recommended regimes)

-Gram Negative: E. Coli, Serratia, Klebsiella, Enterobacter, Enterococcus

- **Anaerobic**: Bacteroides, clostridium

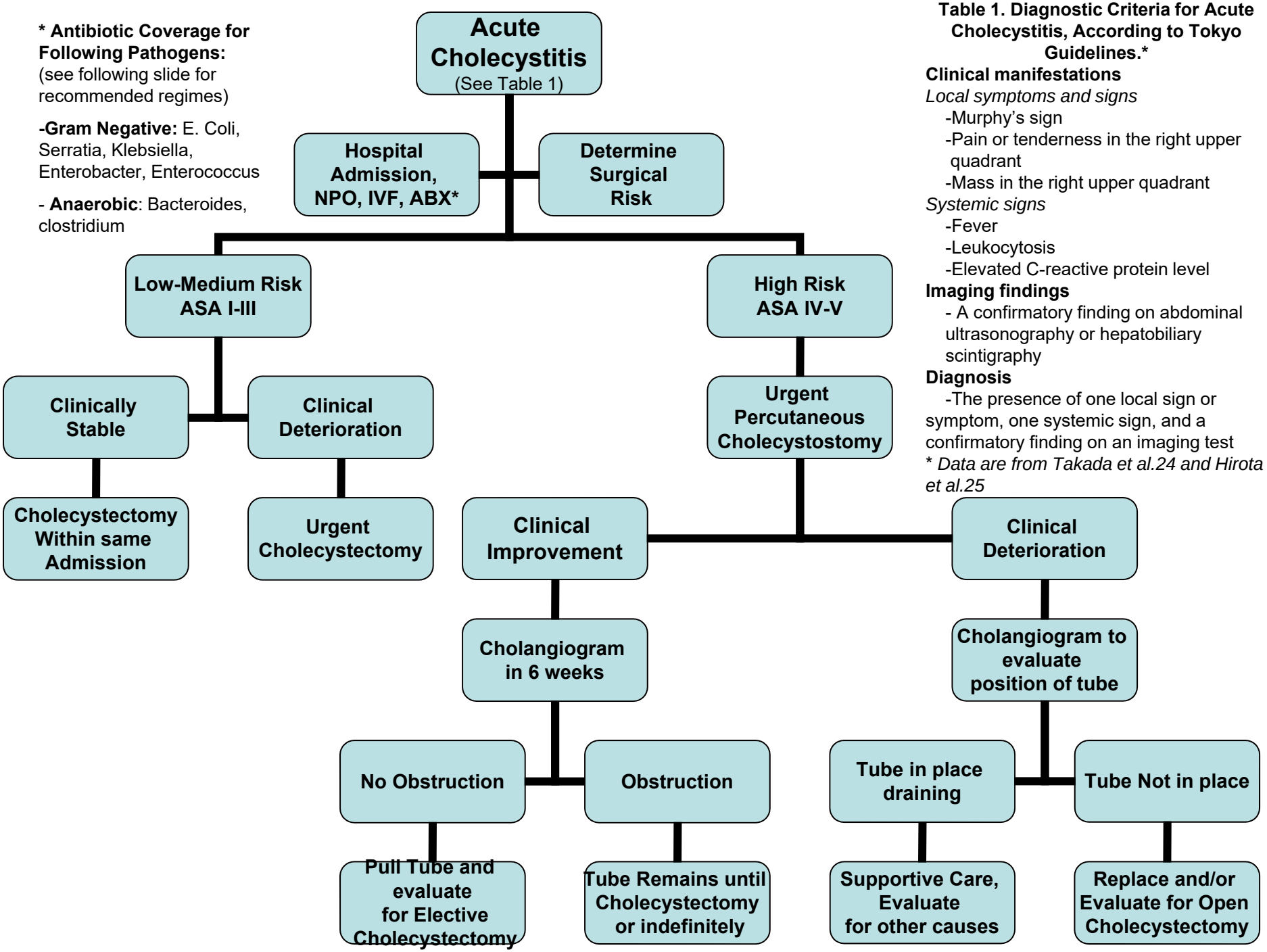

Table 1. Diagnostic Criteria for Acute Cholecystitis, According to Tokyo Guidelines.*

Clinical manifestations

Local symptoms and signs

-Murphy's sign
-Pain or tenderness in the right upper quadrant
-Mass in the right upper quadrant

Systemic signs

-Fever
-Leukocytosis
-Elevated C-reactive protein level

Imaging findings

- A confirmatory finding on abdominal ultrasonography or hepatobiliary scintigraphy

Diagnosis

-The presence of one local sign or symptom, one systemic sign, and a confirmatory finding on an imaging test

** Data are from Takada et al.24 and Hirota et al.25*

Empiric antibiotic therapy for gram-negative and anaerobic pathogens

Regimen	Dose (adult)*
First choice	
Monotherapy with a beta-lactam/beta-lactamase inhibitor:	
Ampicillin-sulbactam•	3 g IV every six hours
Piperacillin-tazobactamΔ	3.375 or 4.5 g IV every six hours
Ticarcillin-clavulanate	3.1 g IV every four hours
Combination third generation cephalosporin **PLUS** metronidazole:	
Ceftriaxone **plus**	1 g IV every 24 hours or 2 g IV every 12 hours for CNS infections
Metronidazole	500 mg IV every eight hours
Alternative empiric regimens	
Combination fluoroquinolone◇ **PLUS** metronidazole:	
Ciprofloxacin **or**	400 mg IV every 12 hours
Levofloxacin **plus**	500 or 750 mg IV once daily
Metronidazole	500 mg IV every eight hours
Monotherapy with a carbapenem§:	
Imipenem-cilastatin	500 mg IV every six hours
Meropenem	1 g IV every eight hours
Doripenem	500 mg IV every eight hours
Ertapenem¥	1 g once daily

* Antibiotic doses should be adjusted appropriately for patients with renal insufficiency or other dose-related consideration.
• 3 g ampicillin-sulbactam is equivalent to 2 g ampicillin with 1 g sulbactam.
Δ Some clinicians use 4.5 g every eight hours for empiric therapy since the percent time above the MIC is similar between the regimens for most pathogens; however, this regimen is NOT recommended for nosocomial pneumonia or *Pseudomonas* coverage. See "Treatment of hospital-acquired, ventilator-associated, and healthcare-associated pneumonia in adults" and "Treatment of *Pseudomonas aeruginosa* infections".
◇ Fluoroquinolones are generally avoided in pregnant women due to potential fetal toxicity.
§ Use carbapenems cautiously in patients with immediate-type hypersensitivity to beta-lactams.
¥ Ertapenem lacks activity against acinetobacter and pseudomonas and is not a recommended choice for a severe or nosocomial infection.