

CLEAR: **(Canadian LEadership on Antimicrobial Real-life Usage) Registry**

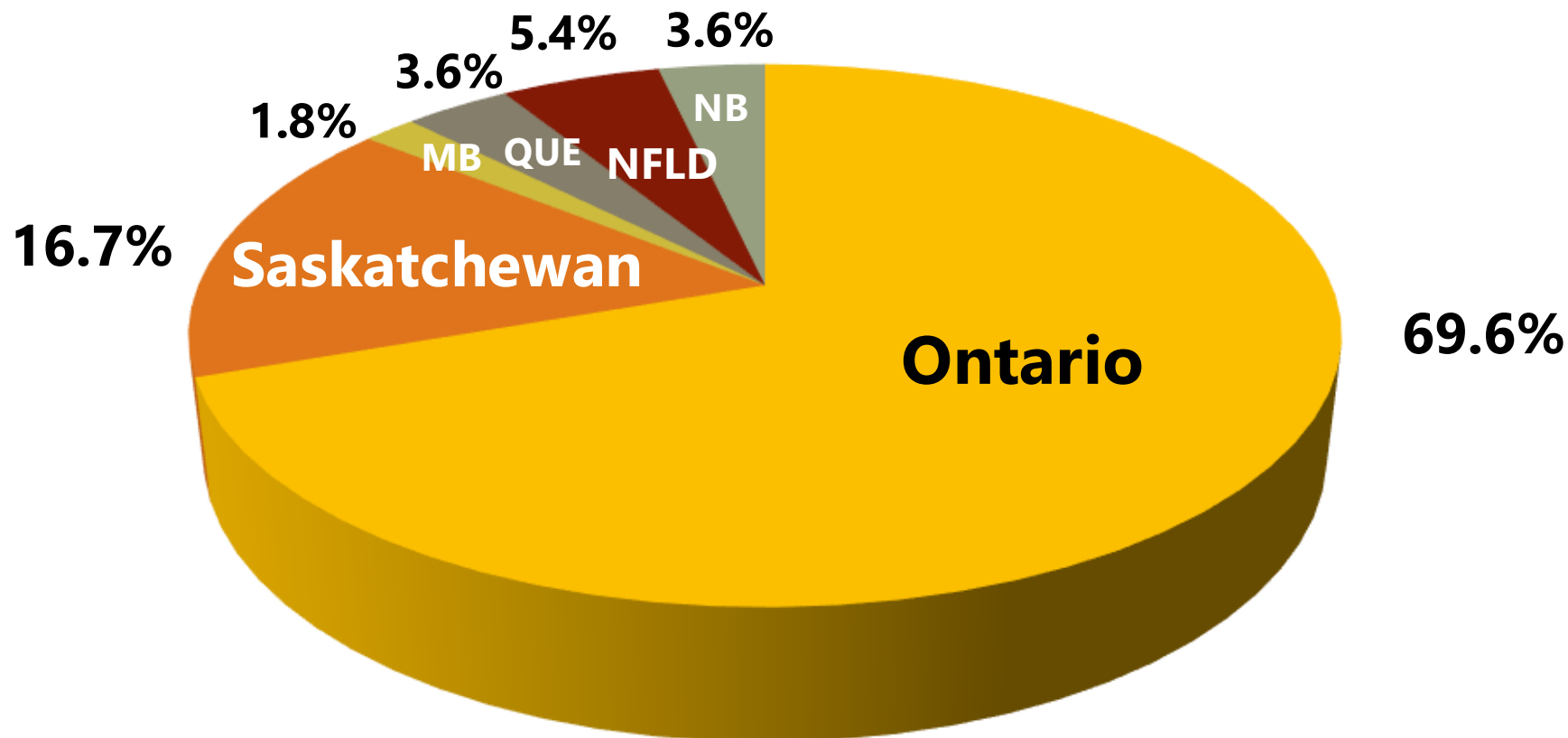
Analysis of Ceftobiprole ENDOCARDITIS Usage in Canada as of May 2026

Ceftobiprole

ENDOCARDITIS: <https://rcsurvey.radyfhs.umanitoba.ca/surveys/?s=JM8JJHLA8N3JDKWA>

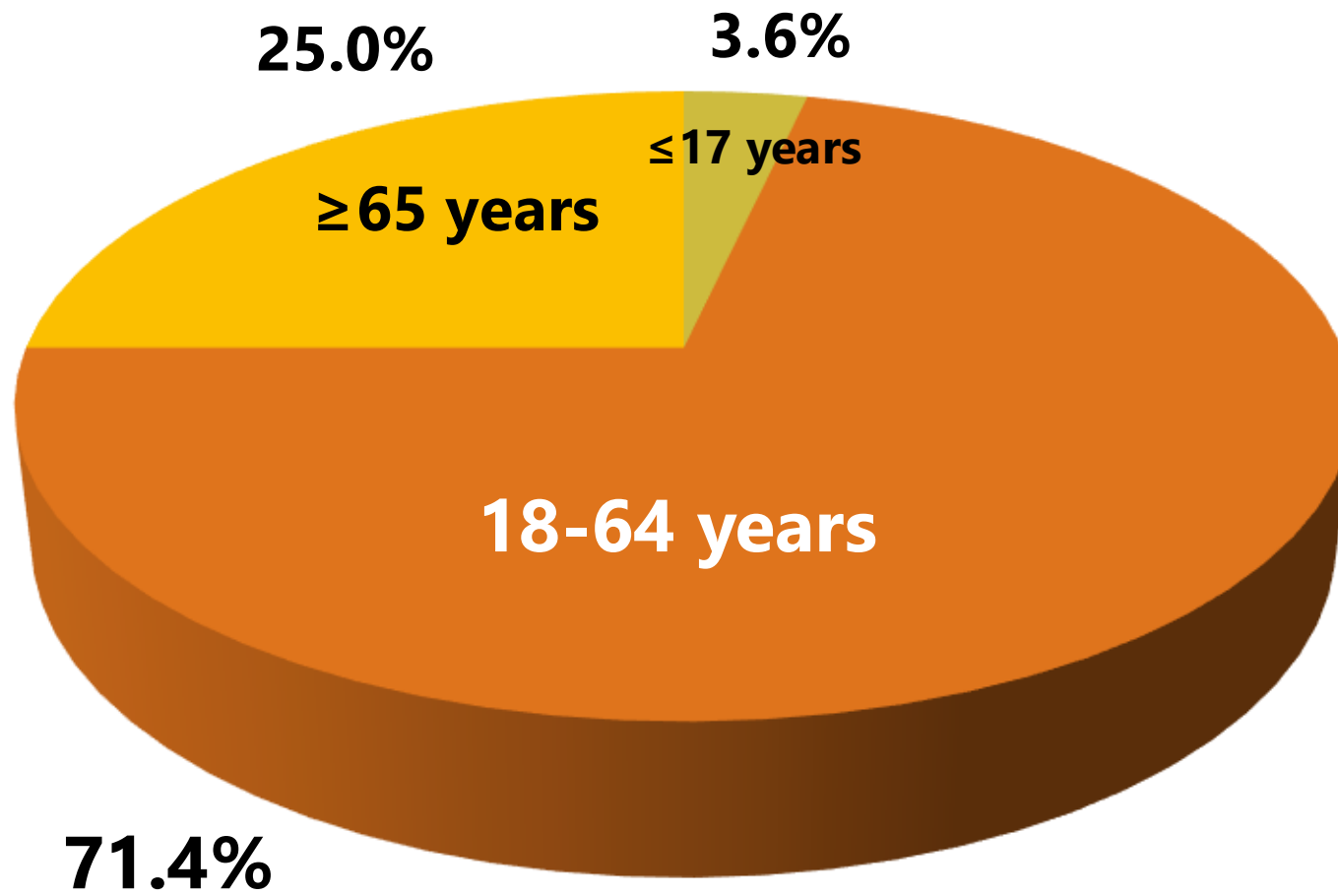
CLEAR (n=56): Ceftobiprole ENDOCARDITIS

Reports by Province



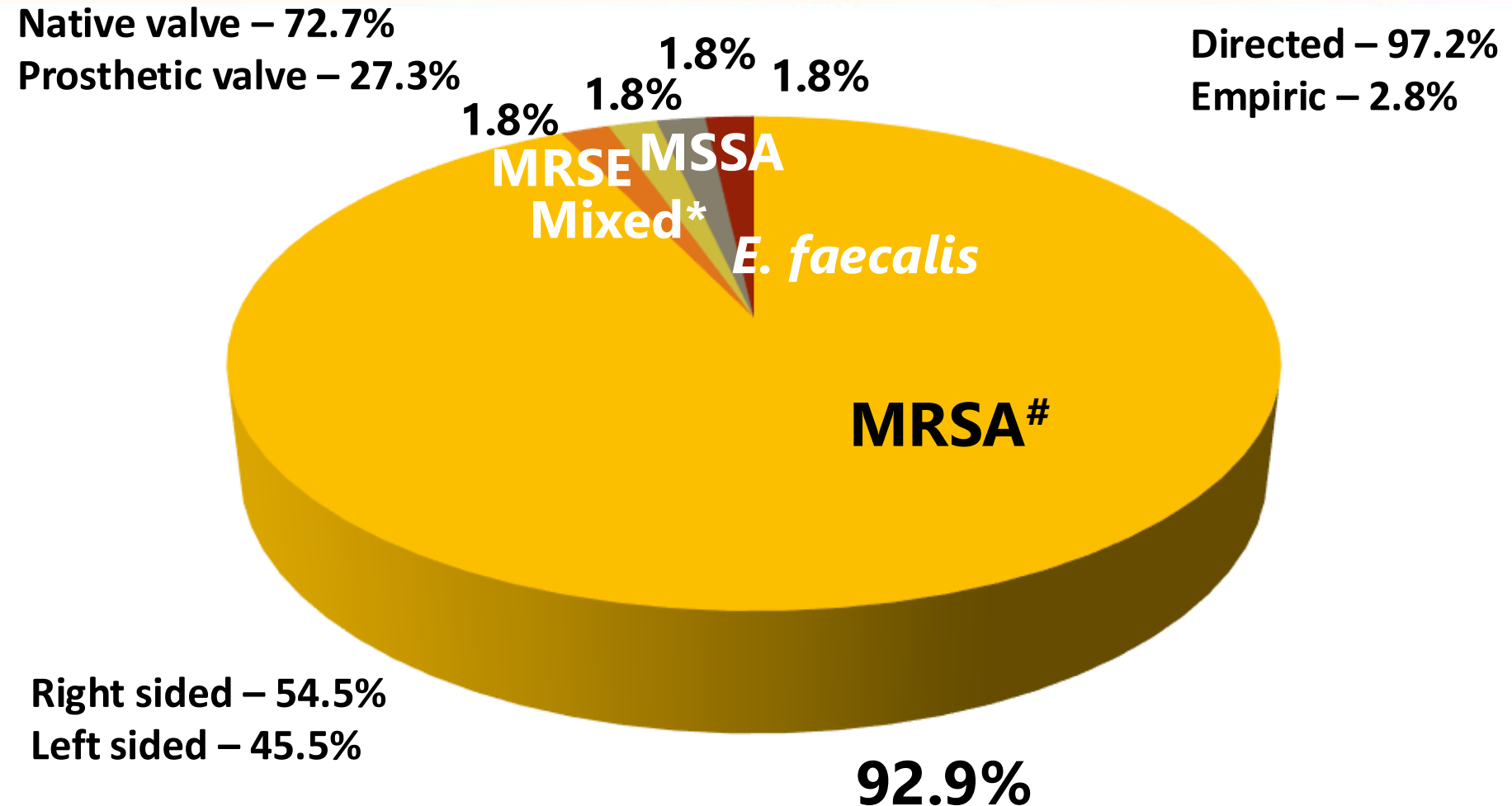
CLEAR (n=56): Ceftobiprole ENDOCARDITIS

Age of Patients



CLEAR (n=56): Ceftobiprole ENDOCARDITIS

Pathogen(s) Treated



*Mixed-MRSA + GAS

MSSA – Methicillin-susceptible *Staphylococcus aureus*

MRSA – Methicillin-resistant *Staphylococcus aureus*

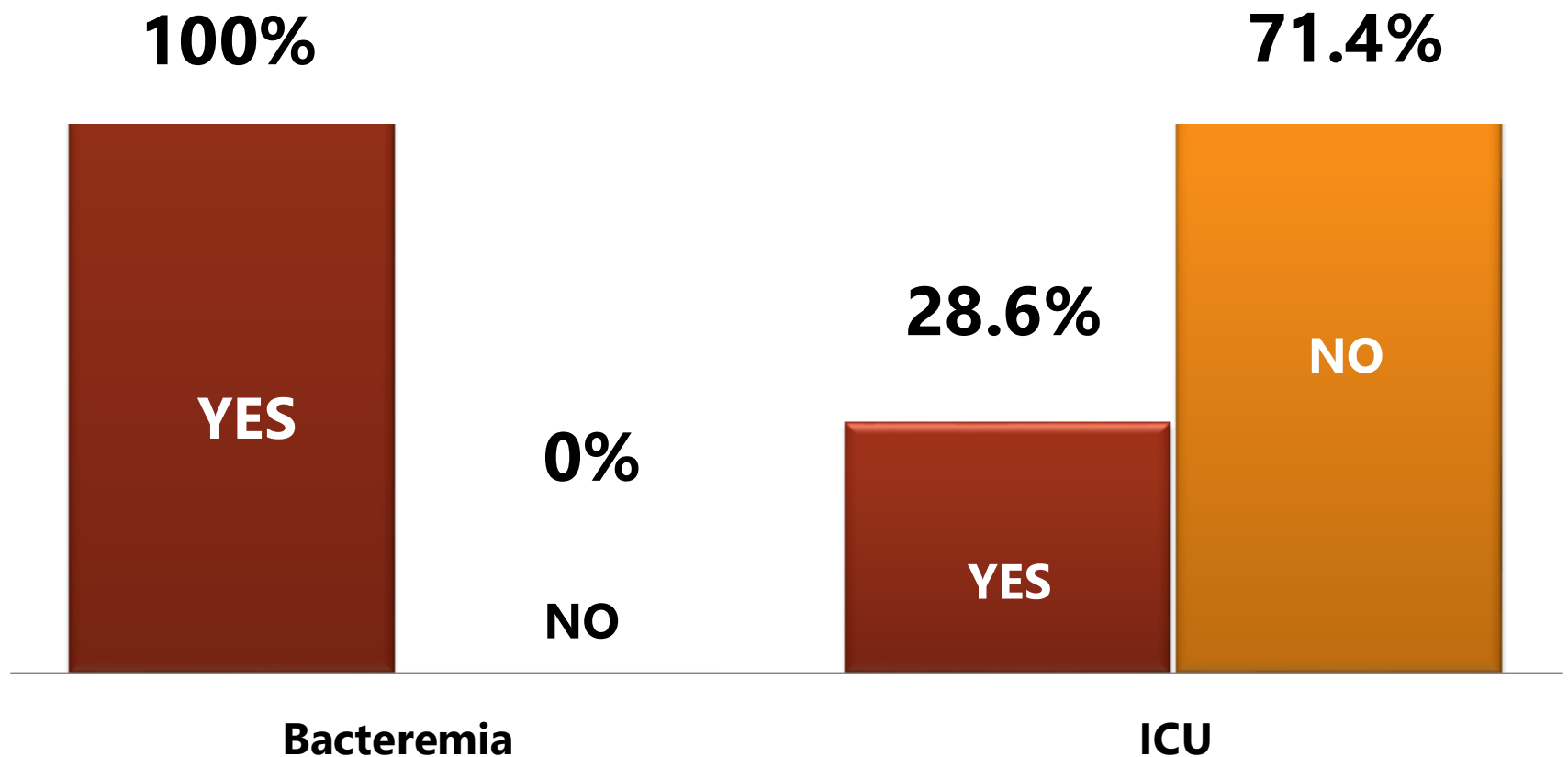
MRSE – Methicillin-resistant *Staphylococcus epidermidis*

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



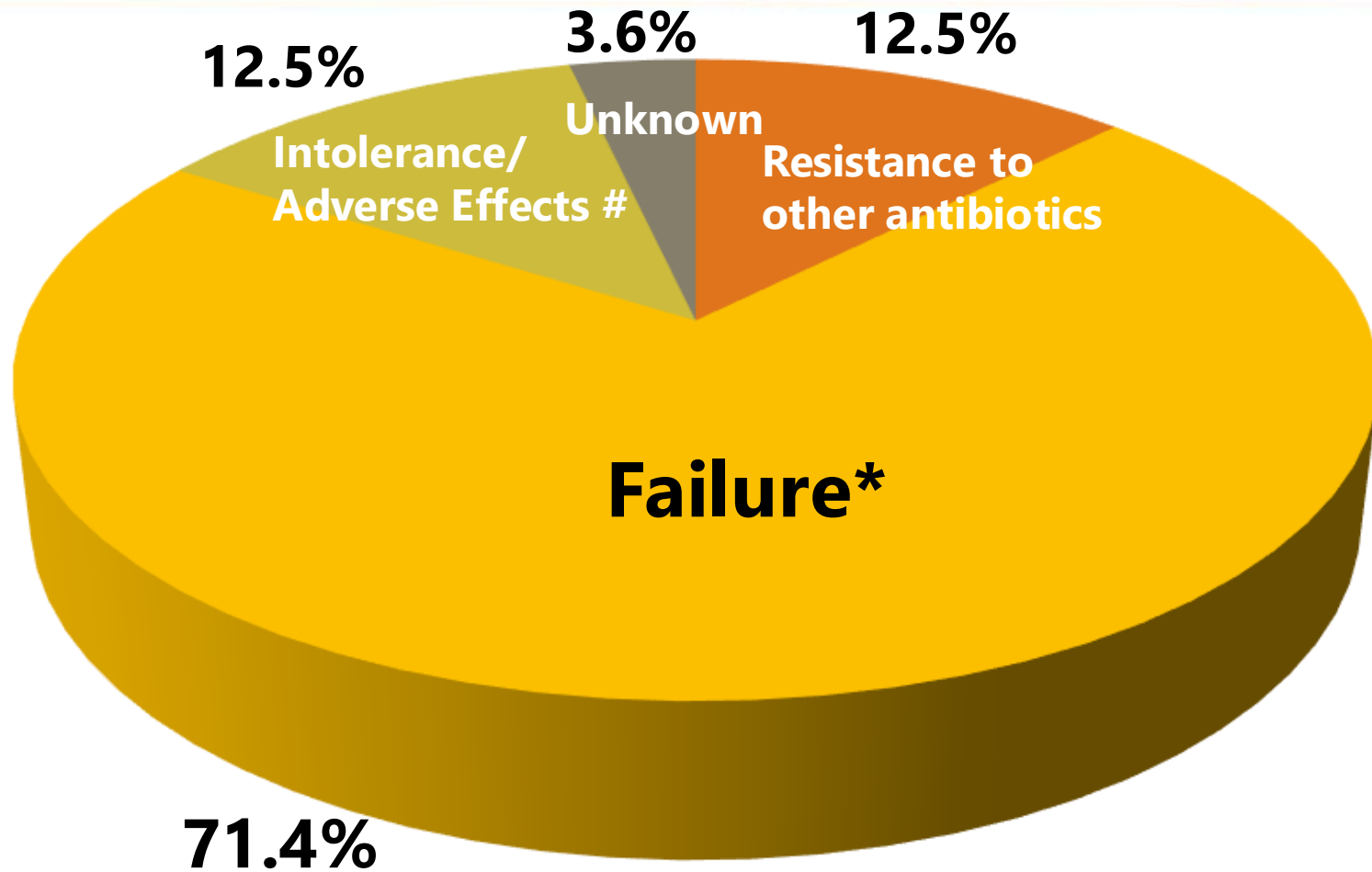
CLEAR (n=56): Ceftobiprole ENDOCARDITIS

Was Patient Bacteremic or in the ICU ?



CLEAR (n=56): Ceftobiprole ENDOCARDITIS

Why Was Ceftobiprole Used ?



* failure to previous antibiotics

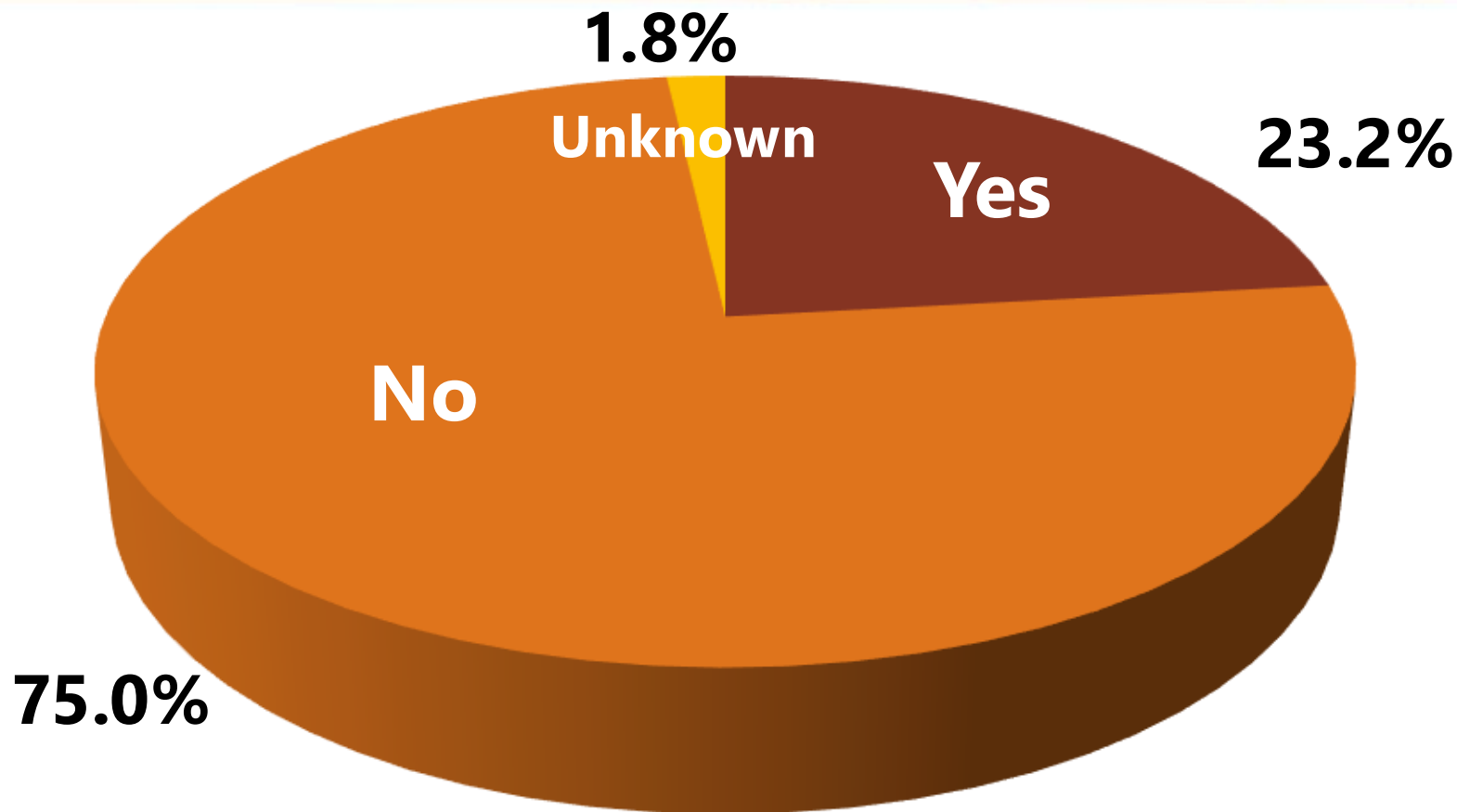
intolerance/adverse effects to other antibiotics

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CLEAR (n=54): Ceftobiprole ENDOCARDITIS

Was Ceftobiprole Susceptibility Testing Performed ?



Etest: n = 9

MICs: 0.25ug/ml n = 1; 0.5ug/ml n = 2; 1ug/ml n = 3; 2ug/ml n = 3.

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CLEAR (n=56): Ceftobiprole ENDOCARDITIS

How Was Ceftobiprole Dosed / Infused ?

# (%) of Patients	Ceftobiprole Dose
1 (1.8%)	1 Gram Q8H
1 (1.8%)	1 Gram Q12H
35 (62.5%)	500mg Q8H
4 (7.1%)	500mg Q12H
6 (10.7%)	500mg Q6H
4 (7.1%)	250mg Q24H
5 (8.9%)	250mg Q12H

Creatinine clearance measured in 100% (56/56) patients

Infusion time:

- short (15 min – 1 hour) 10.7% (6/56)
- **Prolonged* (≥2 hours) 83.9% (47/56)**
- unknown 5.3% (3/56)

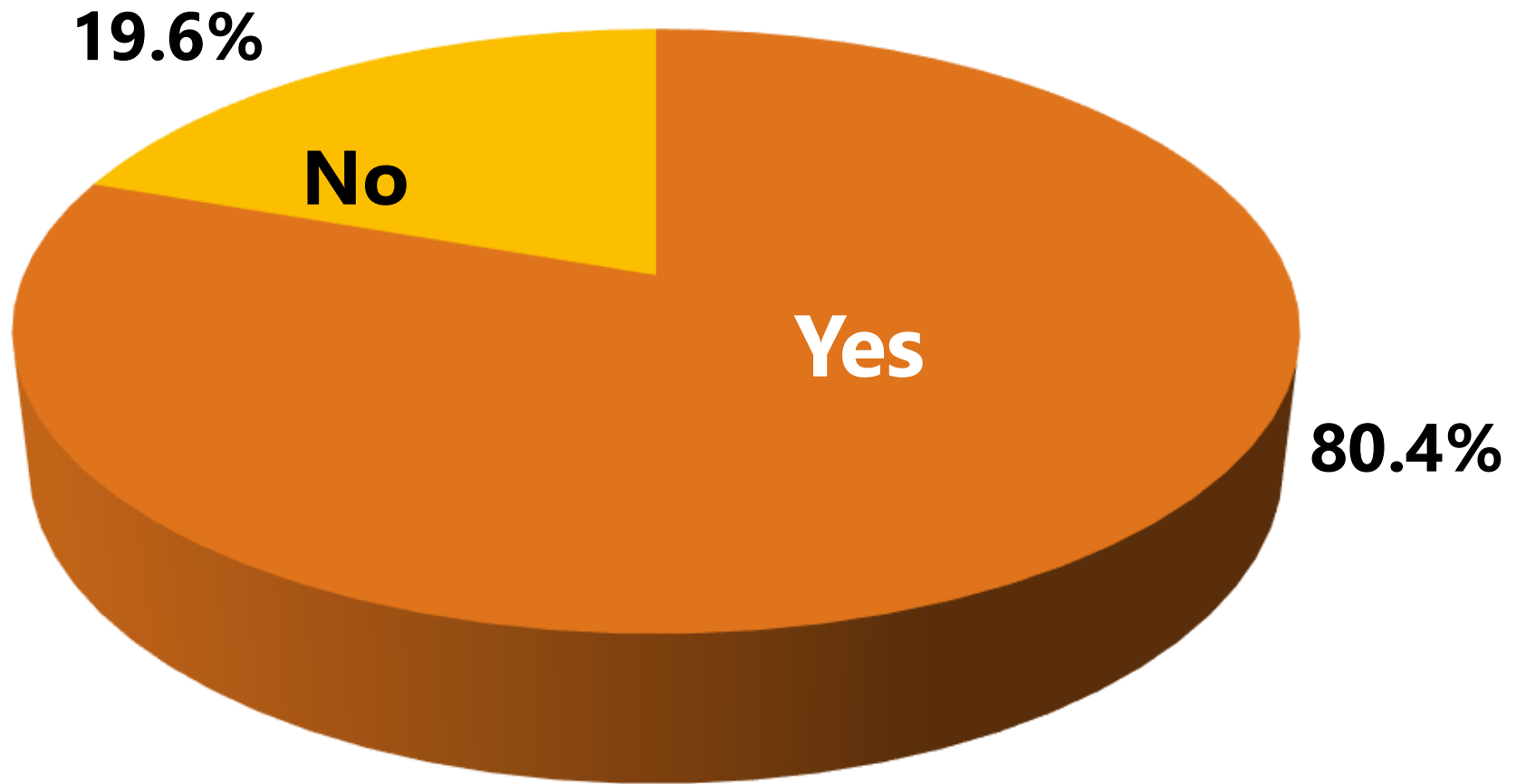
* On label: 2 hour infusion

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CLEAR (n=56): Ceftobiprole ENDOCARDITIS

Was Ceftobiprole Used Along With Another Gram-positive Antibiotic ?



No

Yes

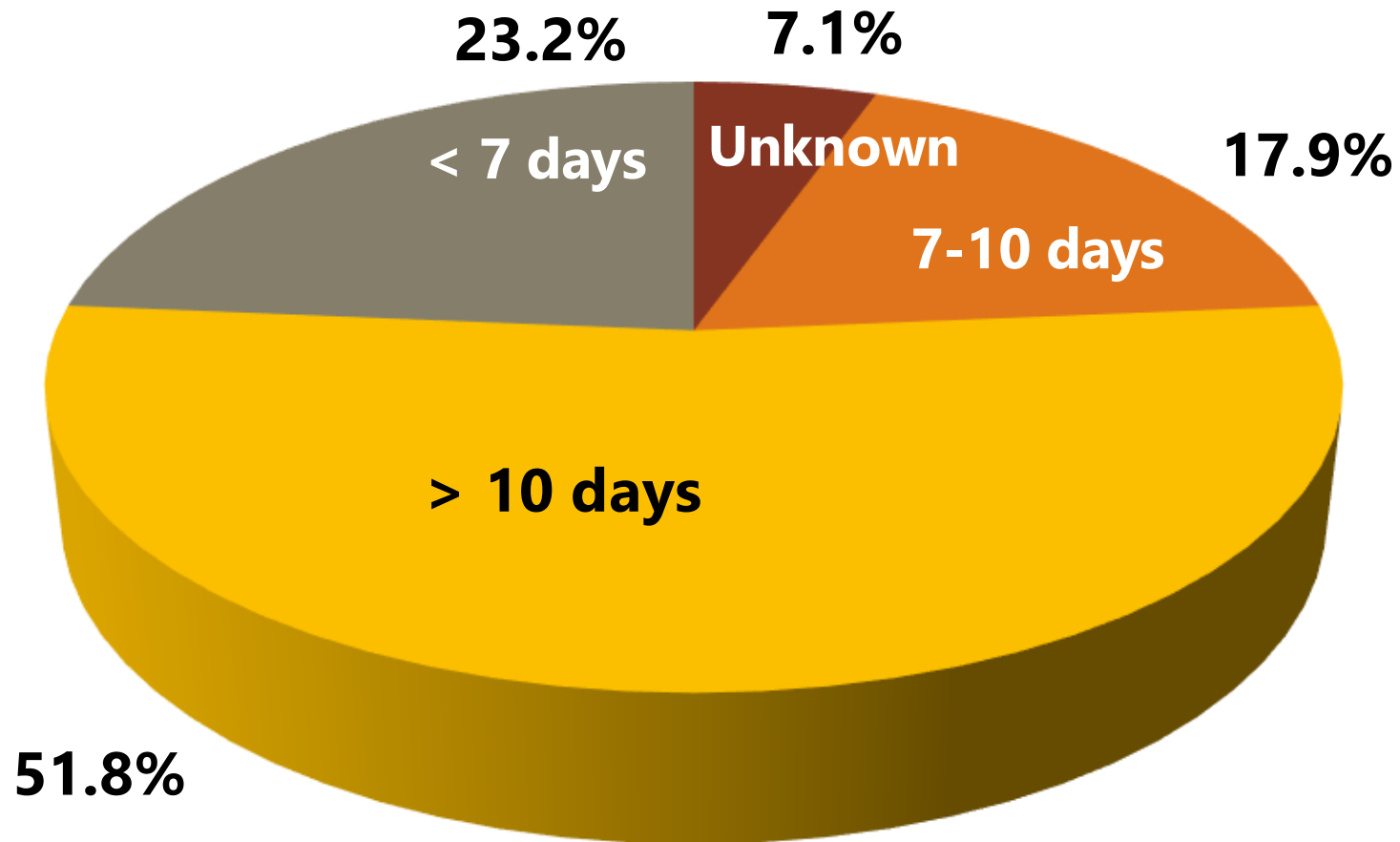
80.4%

19.6%

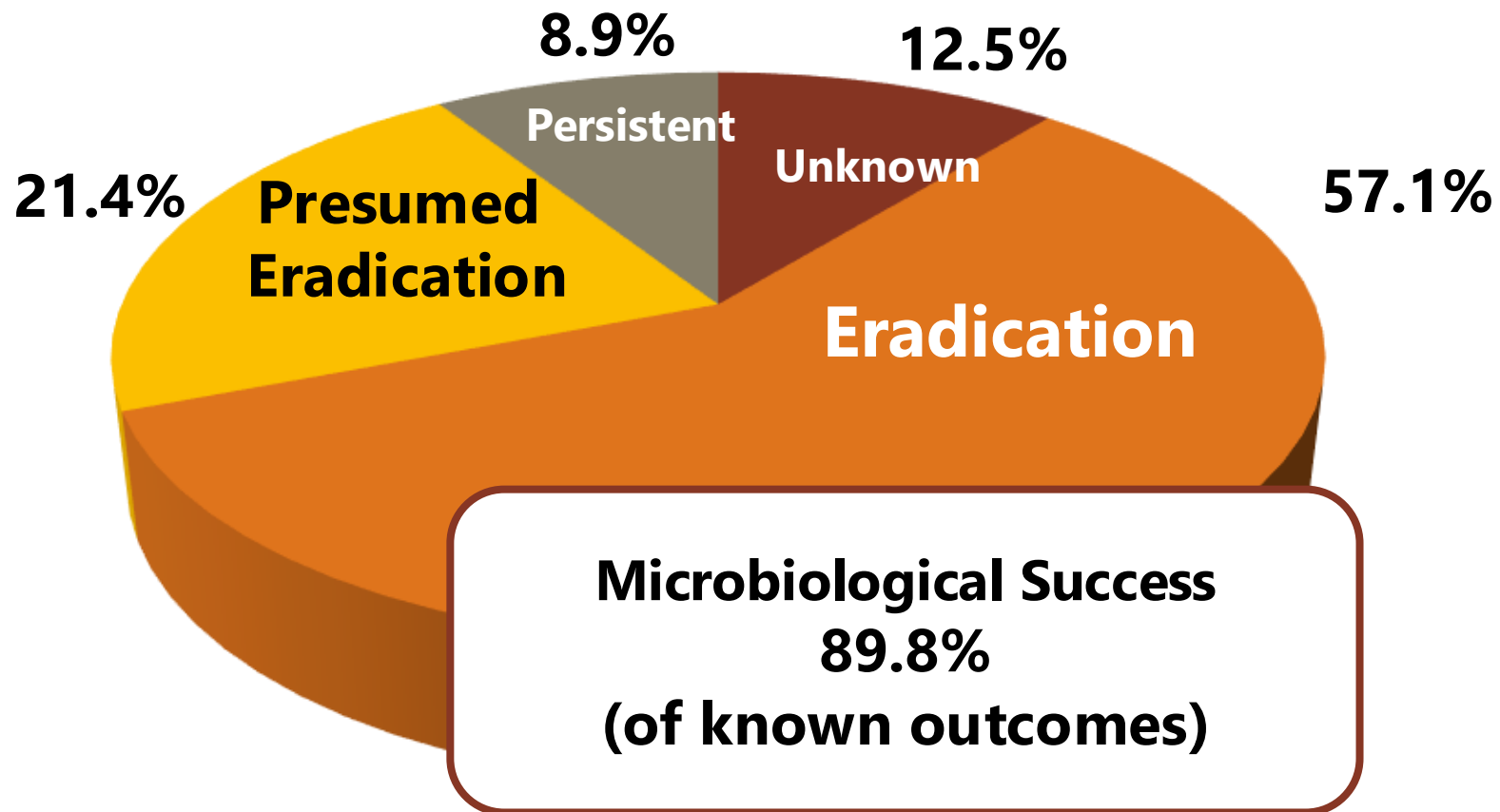
IV daptomycin = 30
IV vancomycin = 9
IV daptomycin + vancomycin = 2

CLEAR (n=56): Ceftobiprole ENDOCARDITIS

Duration of Treatment

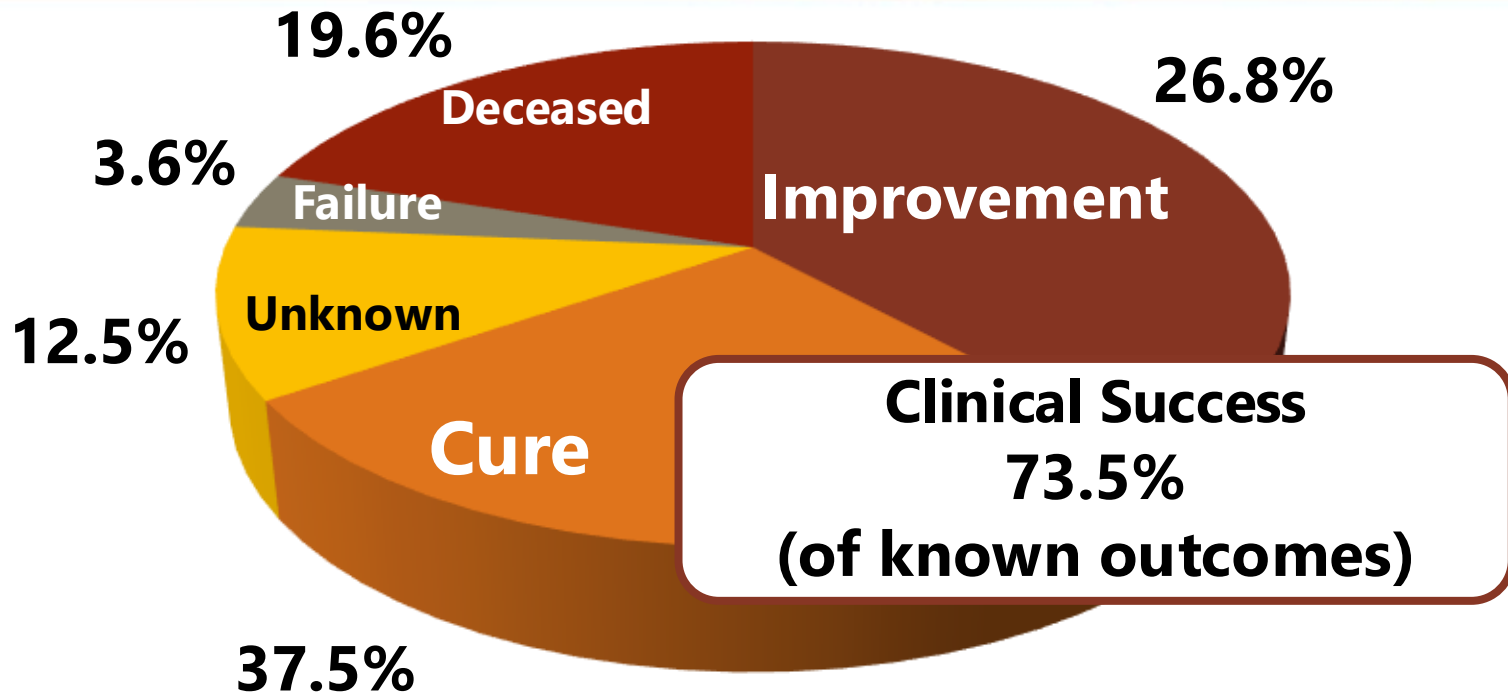


CLEAR (n=56): Ceftobiprole ENDOCARDITIS Microbiological Outcome



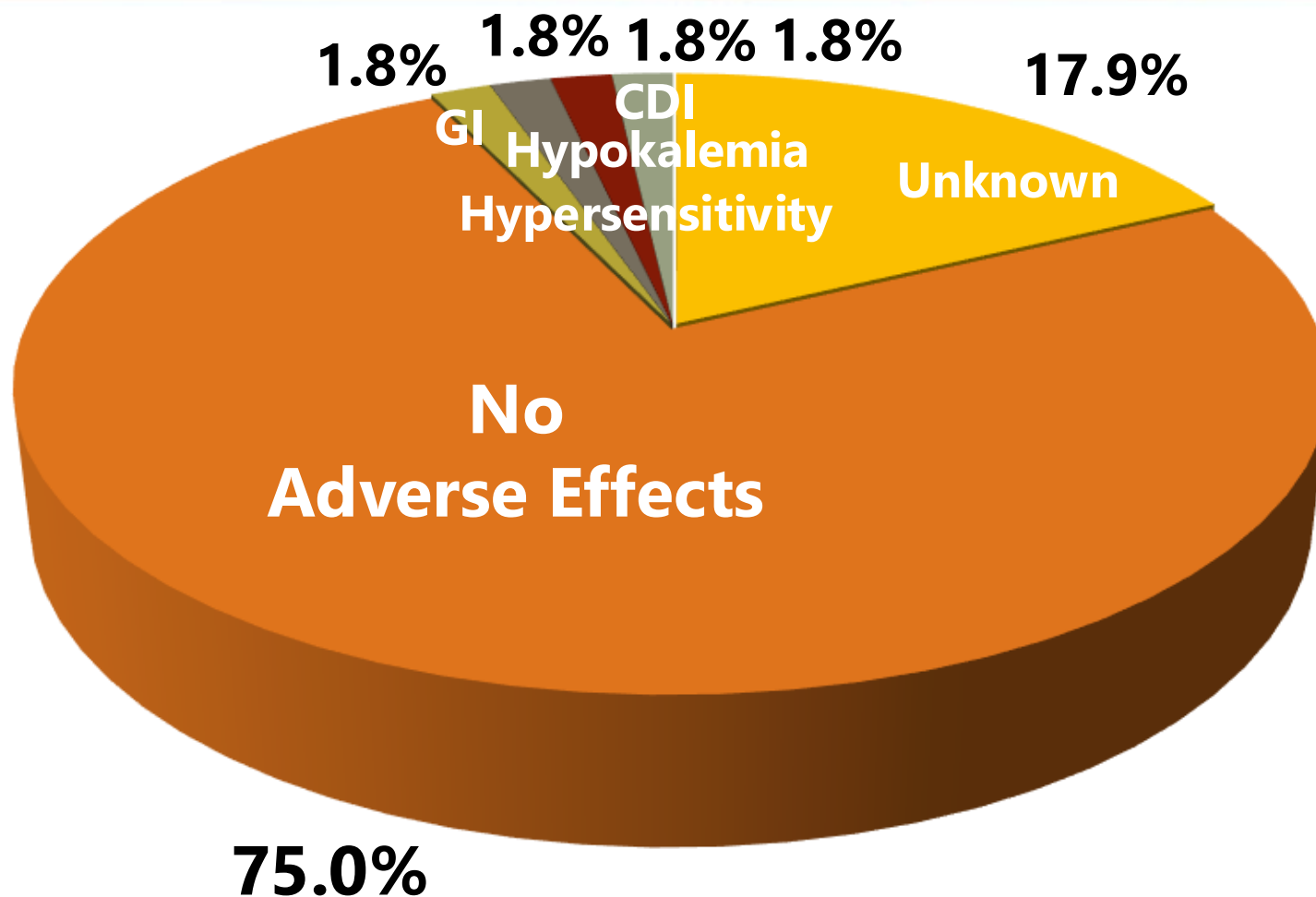
CLEAR (n=56): Ceftobiprole ENDOCARDITIS

Clinical Outcome



Death: 9/11 due to infection

CLEAR (n=56): Ceftobiprole ENDOCARDITIS Adverse Effects



GI – gastrointestinal, hypokalemia and *Clostridium difficile* infection-CDI (not associated with ceftobiprole discontinuation)
Hypersensitivity – 1 case of acute interstitial nephritis (ceftobiprole discontinued)

Conclusions – CLEAR Ceftobiprole ENDOCARDITIS

1. Ceftobiprole is used to treat endocarditis (all patients having bacteremia) primarily in adults 18-64 years of age
2. Ceftobiprole is used primarily as directed therapy for infections caused by MRSA (though mixed MRSA/GAS and *E. faecalis* also treated)
3. Ceftobiprole is primarily used due to failure of previous antibiotics
4. Ceftobiprole is frequently used without antimicrobial susceptibility testing

Conclusions – CLEAR Ceftobiprole ENDOCARDITIS

5. Ceftobiprole is frequently added to an existing MRSA agent such as daptomycin and/or vancomycin
6. The most common IV dosage administered is 500mg Q8H and the most common administration is using prolonged infusion ≥ 2 hours (on label 2 hours)
7. Ceftobiprole is frequently used for durations > 10 days
8. Ceftobiprole treatment is associated with high rates of microbiological and clinical success
9. Adverse events were reported in 4 patients, 1 requiring drug discontinuation

CLEAR: **(Canadian Leadership on Antimicrobial Rea-life Usage) Registry**

Become a CLEAR participant (ggzhanel@pcsinternet.ca)

The CLEAR registry is live, participants receive an email periodically (every 3-4 months) of the most current data as well as links to the **current** registry (eg. **CLEAR - IV Ceftobiprole ENDOCARDITIS, IV Meropenem/Vaborbactam and Pediatric IV Fosfomycin**) so that interested ID/MM physicians and ID/Antimicrobial Stewardship pharmacists can enter patient data (prospective or retrospective)

Ceftobiprole ENDOCARDITIS: <https://rcsurvey.radyfhs.umanitoba.ca/surveys/?s=JM8JJHLA8N3JDKWA>

IV Meropenem/Vaborbactam: <https://rcsurvey.radyfhs.umanitoba.ca/surveys/?s=3H4FJ7HA49MDYHY8>

PEDIATRIC IV fosfomycin... <https://rcsurvey.radyfhs.umanitoba.ca/surveys/?s=FYHJNY4CRLJFN8DL>