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OPAT Endocarditis: A Trust Experience

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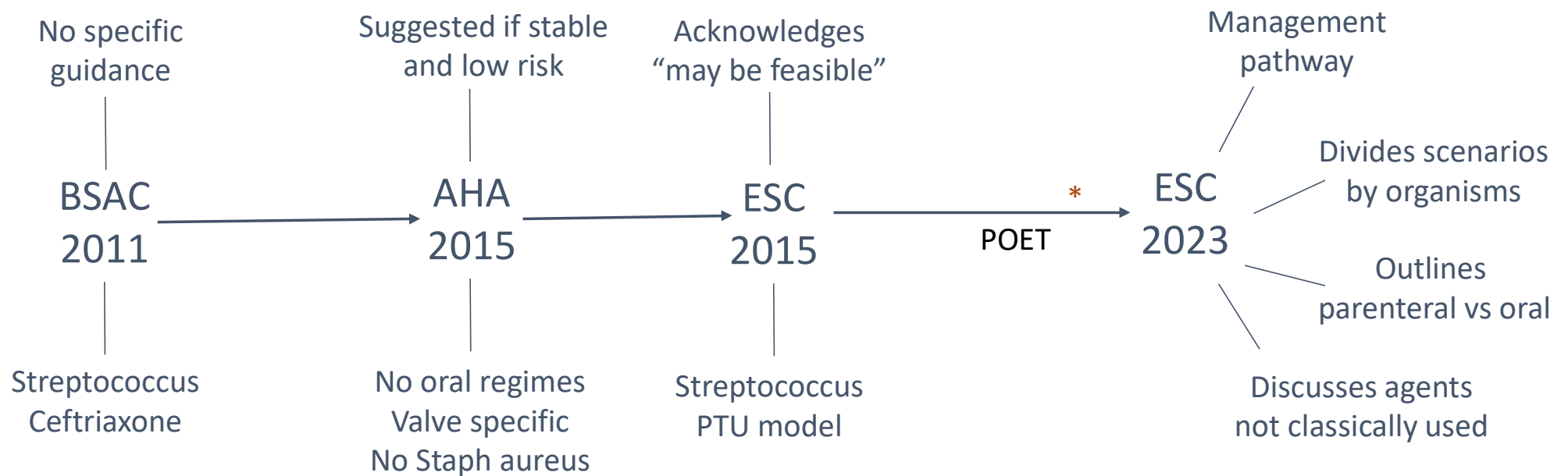
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Introduction

- High morbidity and mortality infection
- Evolving treatment landscape
- Careful patient selection
- Robust OPAT processes
- Advantageous to patient and trust

Evolving Guidelines



ESC 2023

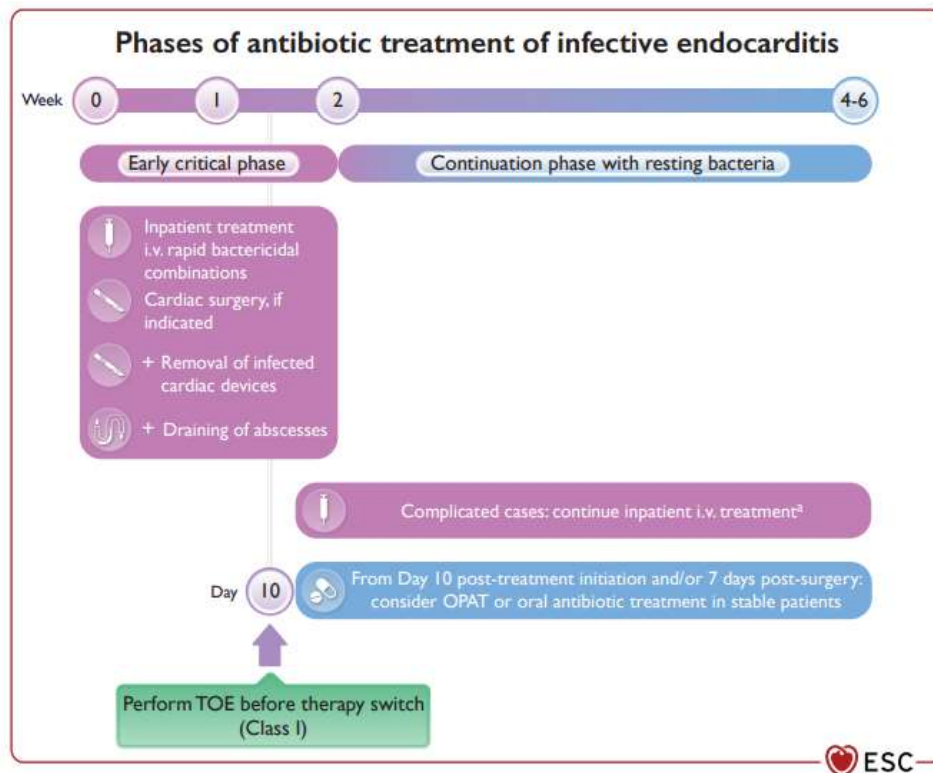


Figure 8 Phases of antibiotic treatment for infective endocarditis in relation to outpatient parenteral antibiotic therapy and partial oral endocarditis treatment. i.v., intravenous; OPAT, outpatient parenteral antibiotic treatment; TOE, transoesophageal echocardiography. ^aCriteria for switching to OPAT or partial oral treatment of endocarditis are given in the [Supplementary data online, Table S8](#).

General recommendations

Outpatient parenteral or oral antibiotic therapy can be considered if:

- Patient is clinically stable.
- Home environment is stable, preferably with a cohabitant caregiver.
- Patient is self-reliant or home healthcare can be provided.

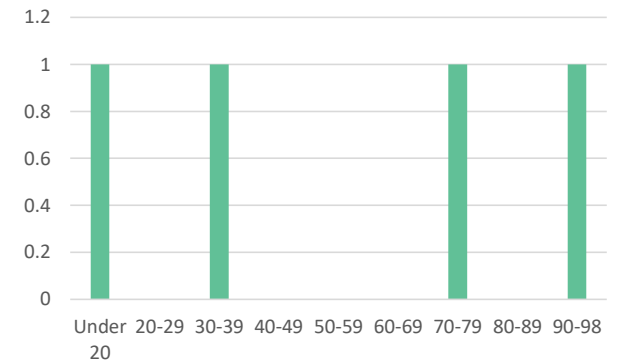
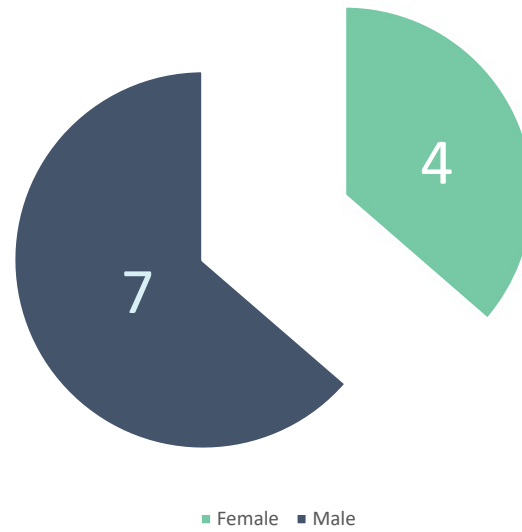
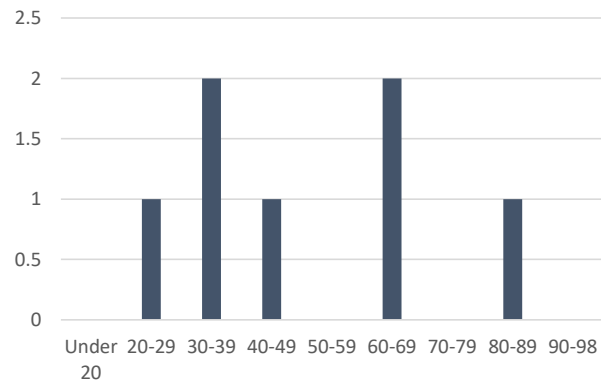
Contraindications:

- Heart failure.
- Severe valvular regurgitation, vegetations >10 mm, progression, or local complications.
- Neurological involvement.
- Renal impairment.
- Malabsorption.
- PWID.


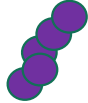
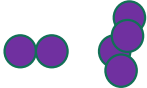

OPAT in the Belfast Trust

- Infectious Diseases led service
- Patients are referred by parent team
- Clinically reviewed on the ward
- Community Nurse In Reach Team review
- Facilitated by District Nursing or PTU
- Weekly MDT
- Blood monitoring
- Bimonthly clinic reviews

Demographics

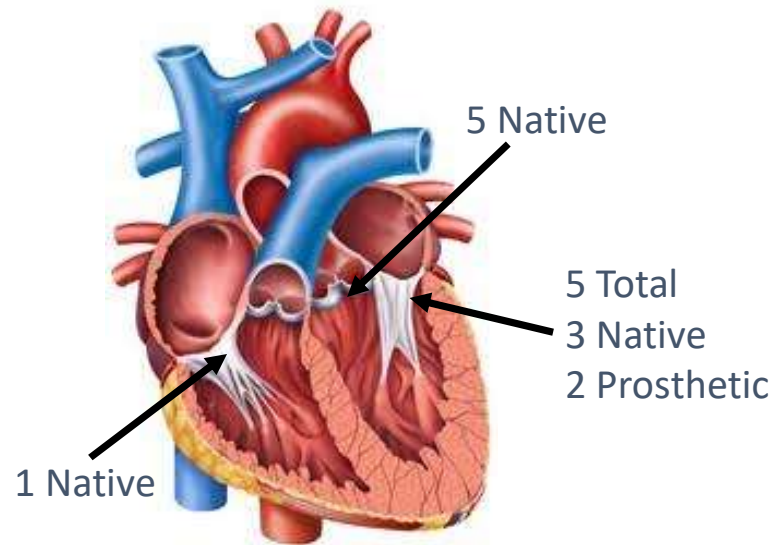


Organisms Isolated

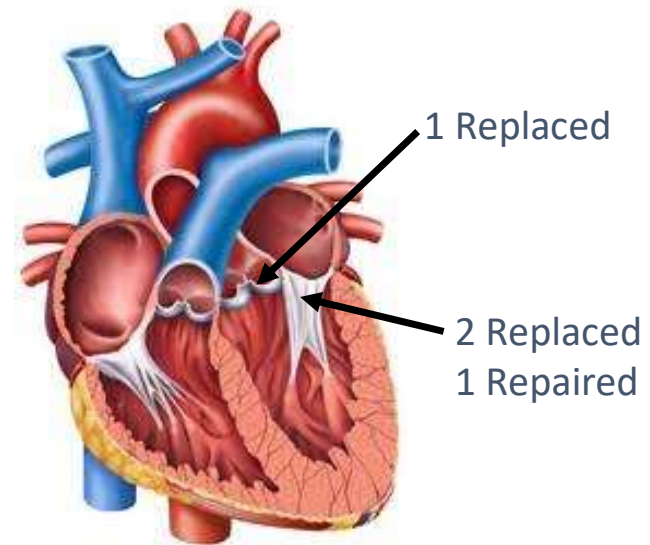
- Staphylococcus 
 - Two MSSA
- Streptococcus 
 - Six Viridans
 - One Group B
- Enterococcus 
 - Ent. Faecalis
- Aggregatibacter actinomycetemcomitans 

Infected Valves

On Presentation



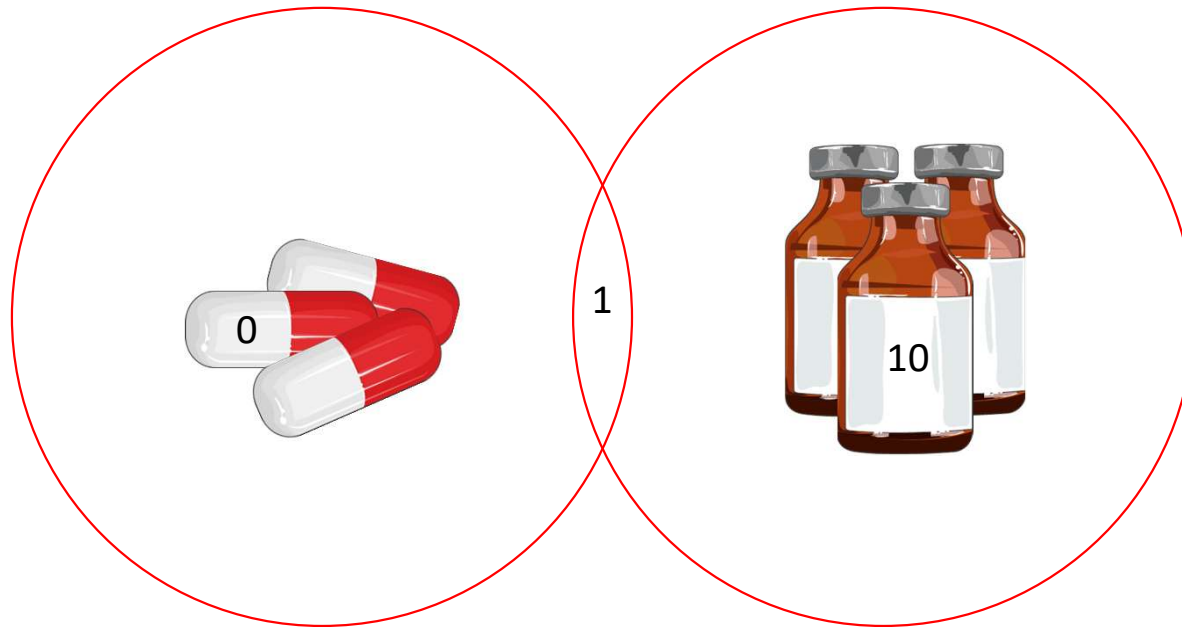
Valve Surgery



Clinical Complications of Endocarditis

- Four with no complications
- Three patients with embolic phenomenon (one cerebral, one splenic and renal, one ocular)
- Three patients with heart failure
- One aortic root aneurysm

Antibiotics & Modes of Delivery



Antibiotic Treatment

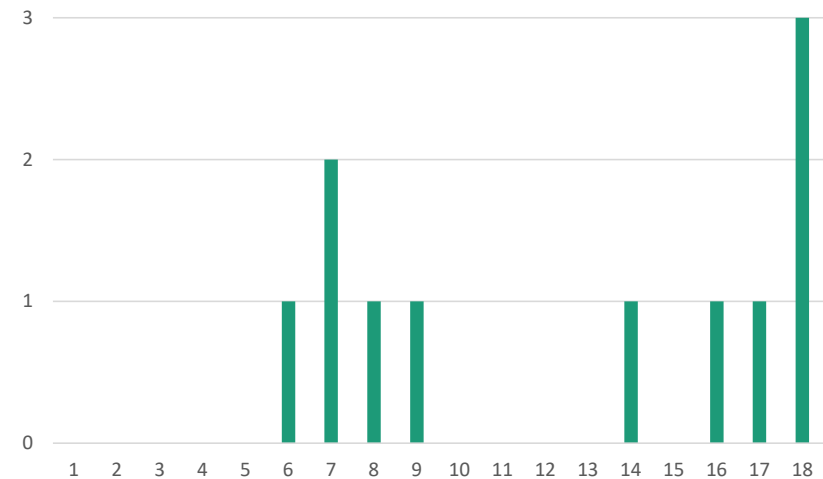
- Antibiotic:
 - Eight Ceftriaxone
 - Two Daptomycin
 - One Dalbavancin
- How:
 - Ten PICC
 - One Cannula
- Where:
 - Nine District Nursing Teams
 - Two PTU

Adverse events during treatment

- During:
 - No adverse events including readmissions
- Within 30 days:
 - One death – 1a End Stage Heart Failure

Bed Days Saved

- Range: 6 – 18 days
- Mean: 12.55
- Median: 14



Conclusions

- Small number of carefully selected patients
- All regimes with IV components
-
- Majority administered in the home via DN
- No complications or unplanned re-admissions
- Bed days saved

References

- Gould, F.K., Denning, D.W., Elliott, T.S., Fowleraker, J., Perry, J.D., Prendergast, B.D., Sandoe, J.A., Spry, M.J. and Watkin, R.W., 2012. Guidelines for the diagnosis and antibiotic treatment of endocarditis in adults: a report of the Working Party of the British Society for Antimicrobial Chemotherapy. *Journal of antimicrobial chemotherapy*, 67(2), pp.269-289.
- Gilchrist, M., Barr, D., Drummond, F., Muir, A., Williams, J., Scriven, J., Snape, S., Hemsley, C., Durojaiye, C.O., Patel, S. and Andrew Seaton, R., 2022. Outpatient parenteral antimicrobial therapy (OPAT) in the UK: findings from the BSAC National Outcomes Registry (2015–19). *Journal of Antimicrobial Chemotherapy*, 77(5), pp.1481-1490.
- Baddour, L.M., Wilson, W.R., Bayer, A.S., Fowler Jr, V.G., Tleyjeh, I.M., Rybak, M.J., Barsic, B., Lockhart, P.B., Gewitz, M.H., Levison, M.E. and Bolger, A.F., 2015. Infective endocarditis in adults: diagnosis, antimicrobial therapy, and management of complications: a scientific statement for healthcare professionals from the American Heart Association. *Circulation*, 132(15), pp.1435-1486.
- Habib, G., Lancellotti, P., Antunes, M.J., Bongiorno, M.G., Casalta, J.P., Del Zotti, F., Dulgheru, R., El Khoury, G., Erba, P.A., Iung, B. and Miro, J.M., 2015. 2015 ESC guidelines for the management of infective endocarditis: the task force for the management of infective endocarditis of the European Society of Cardiology (ESC) endorsed by: European Association for Cardio-Thoracic Surgery (EACTS), the European Association of Nuclear Medicine (EANM). *European heart journal*, 36(44), pp.3075-3128.
- Delgado, V., Ajmone Marsan, N., de Waha, S., Bonaros, N., Brida, M., Burri, H., Caselli, S., Doenst, T., Ederhy, S., Erba, P.A. and Foldager, D., 2023. 2023 ESC guidelines for the management of endocarditis: developed by the task force on the management of endocarditis of the European Society of Cardiology (ESC) endorsed by the European Association for Cardio-Thoracic Surgery (EACTS) and the European Association of Nuclear Medicine (EANM). *European heart journal*, 44(39), pp.3948-4042.
- Iversen, K., Ihlemann, N., Gill, S.U., Madsen, T., Elming, H., Jensen, K.T., Bruun, N.E., Høfsten, D.E., Fursted, K., Christensen, J.J. and Schultz, M., 2019. Partial oral versus intravenous antibiotic treatment of endocarditis. *New England Journal of Medicine*, 380(5), pp.415-424.
- Andrews, M.M. and von Reyn, C.F., 2001. Patient Selection Criteria and Management Guidelines for Outpatient Parenteral Antibiotic Therapy for Native Valve Infective Endocarditis. *Clinical Infectious Diseases*, 33, pp.203-9.