

Dalbavancin experience 2018 -2024

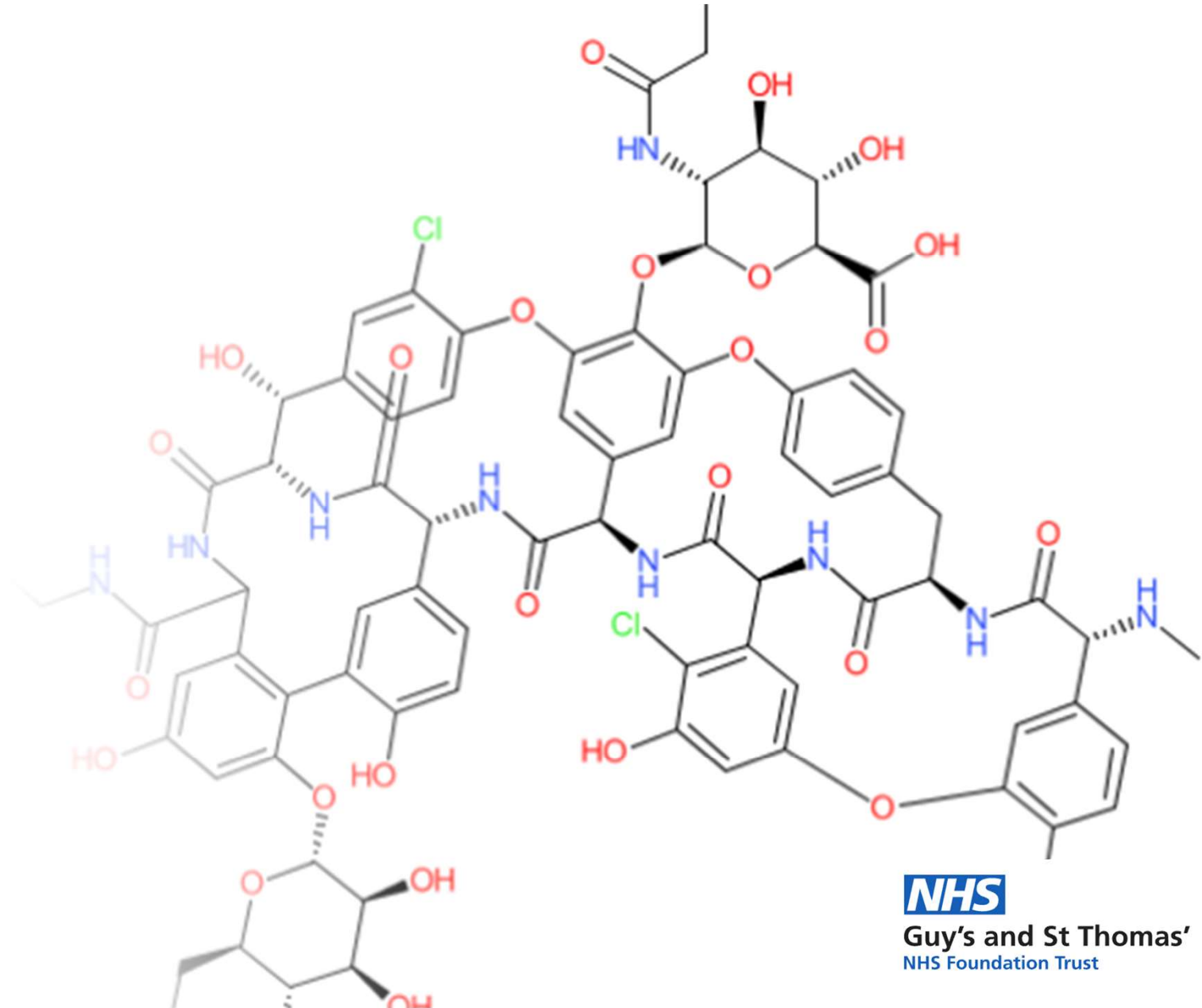
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Guy's and St Thomas' NHS Foundation Trust

Aims

- Background
- Dalbavancin
- Our experience
- Alternatives
- Costs

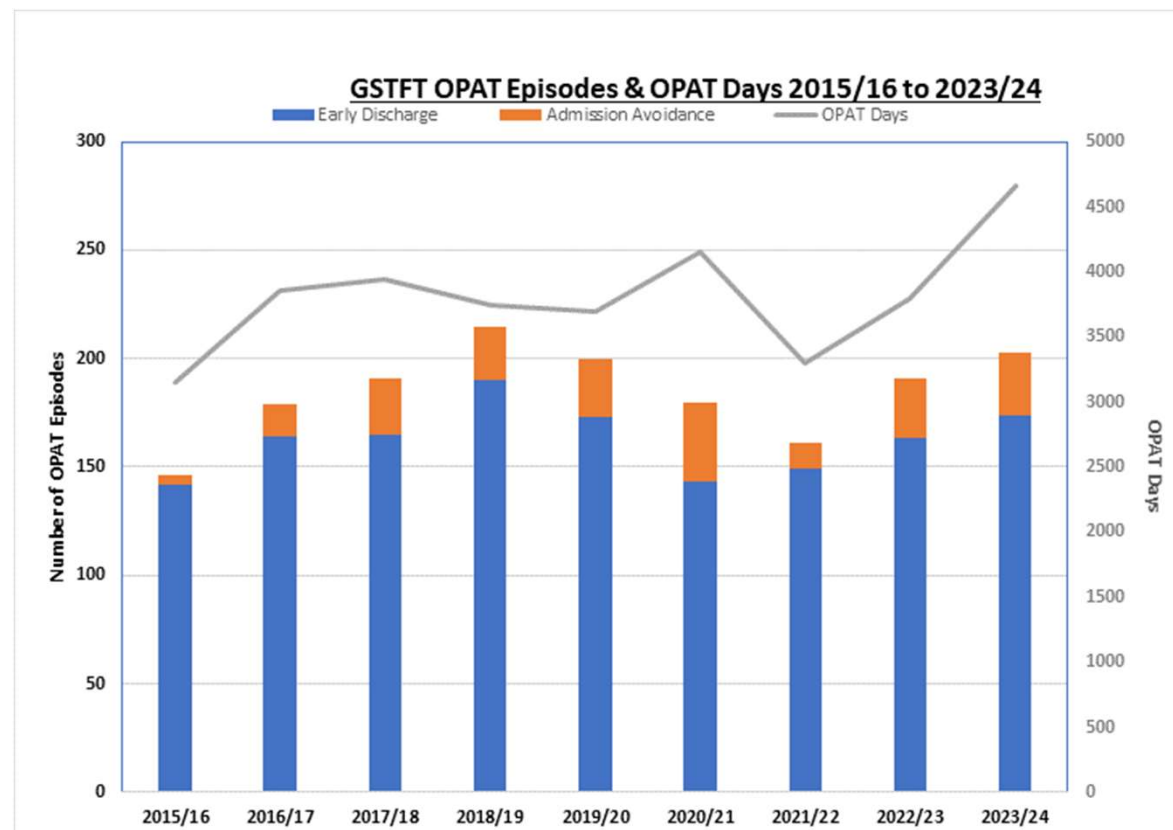
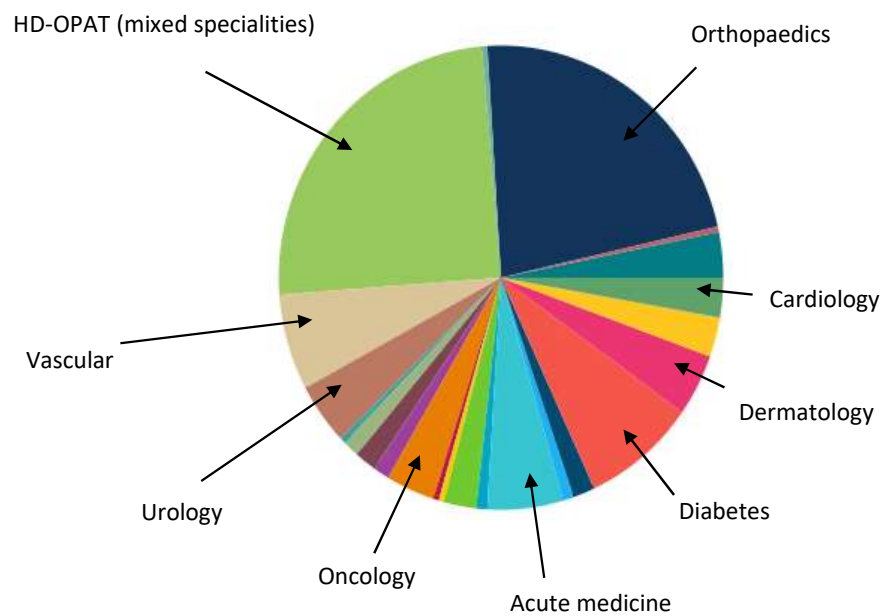


OPAT service at Guy's and St Thomas'

- 2.5 WTE band 7 nurses
- SpR linked to the service
- ~3 consultant PAs
- Pharmacy support



Support > 20 different specialities across GSTT



Dalbavancin

- Lipoglycopeptide antibiotic: Inhibits cell wall synthesis in gram positive bacteria → cell death
- Licensed use: acute bacterial skin and skin structure infection (ABSSSI) in non-pregnant adults caused by susceptible Gram-positive bacteria
- Spectrum of activity: gram positive pathogens (incl MRSA, CoNS, VanB VRE)
- Long half life due to lipophilic side chain: ~14 days
- No significant drug-drug interactions
- Favorable safety profile
- Well tolerated

Evidence supporting its use

- The DISCOVER 1 and 2 trials were phase III, randomized, double-blind studies, comparing dalbavancin to vancomycin/linezolid in the treatment of ABSSSI.
- Similar clinical response rates
- Increase in published data describing off-label use (OM, IE, bacteraemia)
- Submission to SEL Formulary Committee 2022



Formulary

Dalbavancin

injection (gram positive infections, including off-label indications)

BNF

SPC

Formulary



RED

Approved for:

Gram-positive infections, including acute skin and soft tissue (licensed use), deep soft tissue, bone and joint, discitis, bacteraemia and endocarditis (all off-label) as a last line treatment

GSTFT

M

KCH

M

LGT

M

Restricted to:

- **Specialist Infectious Diseases or Microbiology consultant recommendation only**
- Use where other outpatient delivered treatments, including outpatient parenteral antimicrobial therapy (if available) are not suitable for the patient, owing to drug intolerance/contraindication, organism resistance or risk of non-compliance.

Dose:

- 1.5g single dose, or 1g followed by 500mg after 7 days, providing 2 weeks of antimicrobial cover (licensed dosing)
- 1.5g followed by 1.5g after 7 to 14 days, providing 8 weeks of antimicrobial cover (off-label dosing). Repeatable at 8 weeks if required.

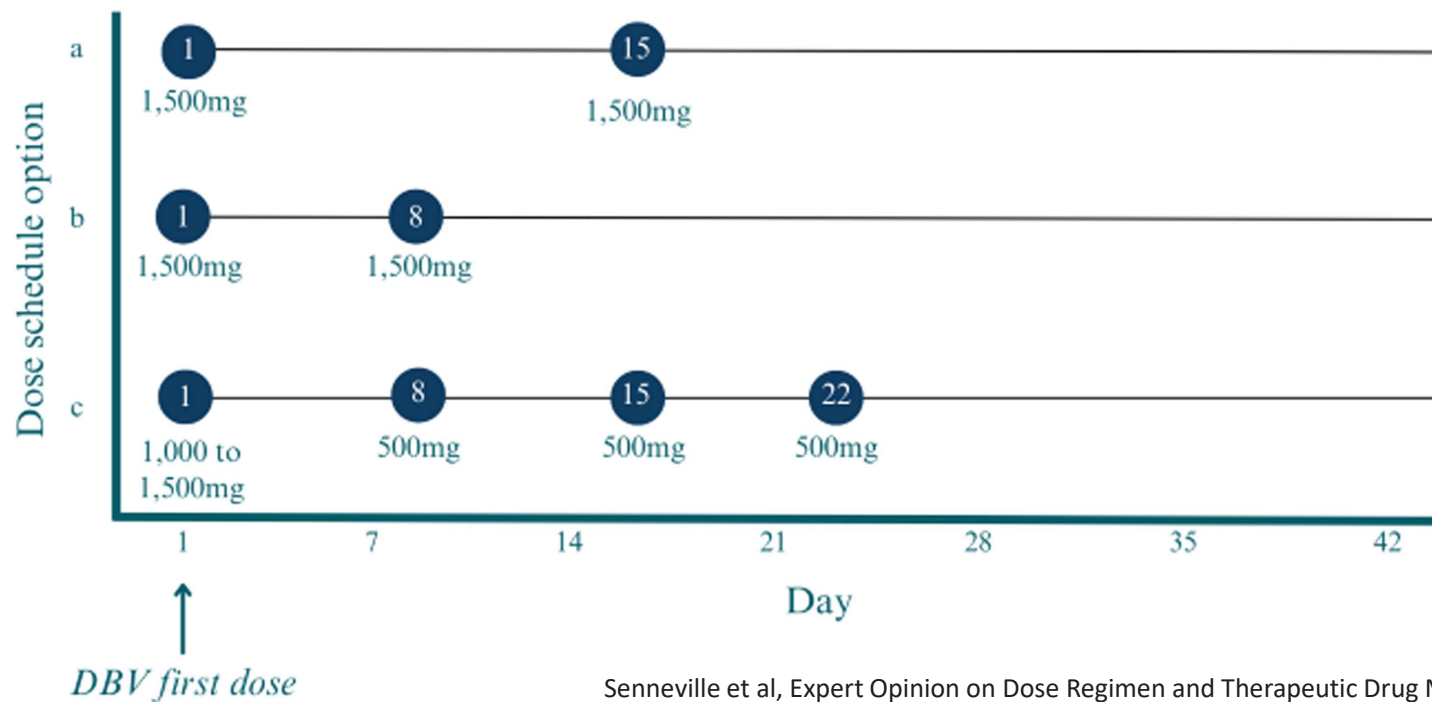
Ref: [South-East London Joint Medicines Formulary Formulary \(selondonjointmedicinesformulary.nhs.uk\)](https://selondonjointmedicinesformulary.nhs.uk)

NHS

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Dosing and administration

- IV administration (30 minutes/500mg)



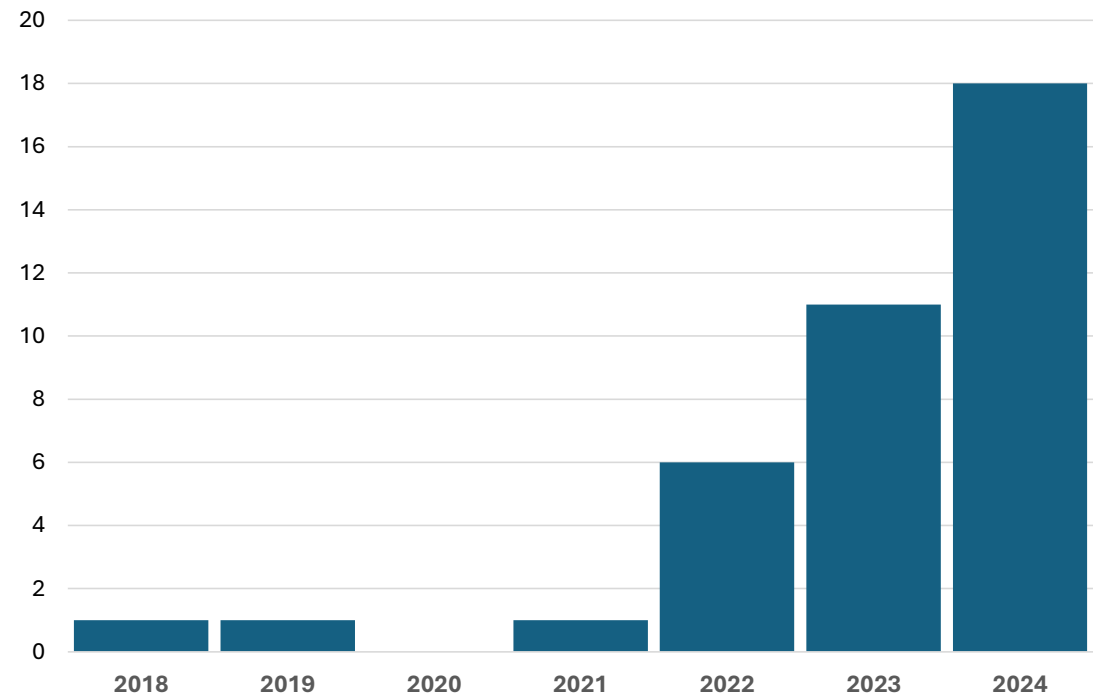
Senneville et al, Expert Opinion on Dose Regimen and Therapeutic Drug Monitoring for Long-Term Use of Dalbavancin: Expert Review Panel, Journal of Antimicrobial Agents, 2023. <https://doi.org/10.1016/j.ijantimicag.2023.106960>

Demographic information

05/02/2018 to 31/08/2024

Number of patients	38
Age, median (IQR)	51 (37-59)
Female (%)	19 (50%)
Co-morbidity	
- Diabetes	13 (34%)
- Malignancy	3 (8%)
- MH diagnosis	3 (8%)
PWID	9 (24%)

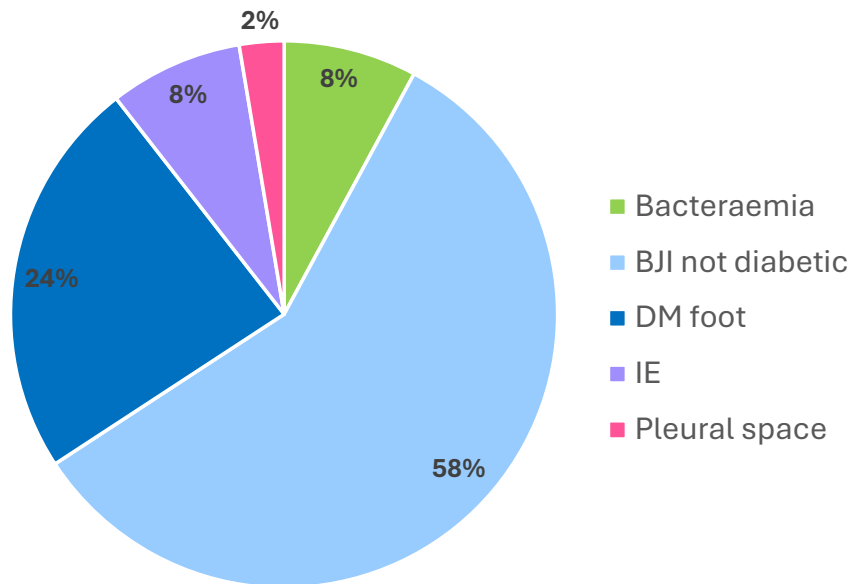
Dalbavancin use over time



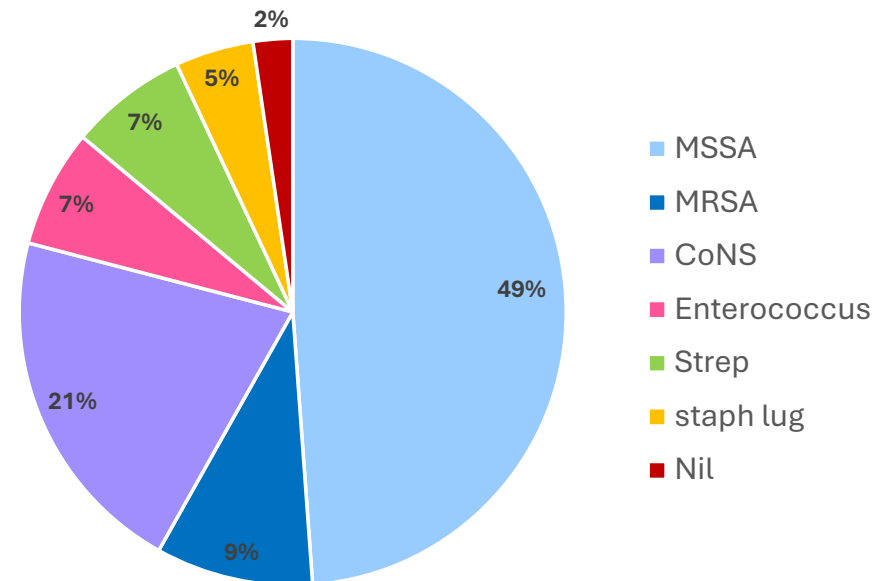
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Clinical indications for use

Infection Diagnosis



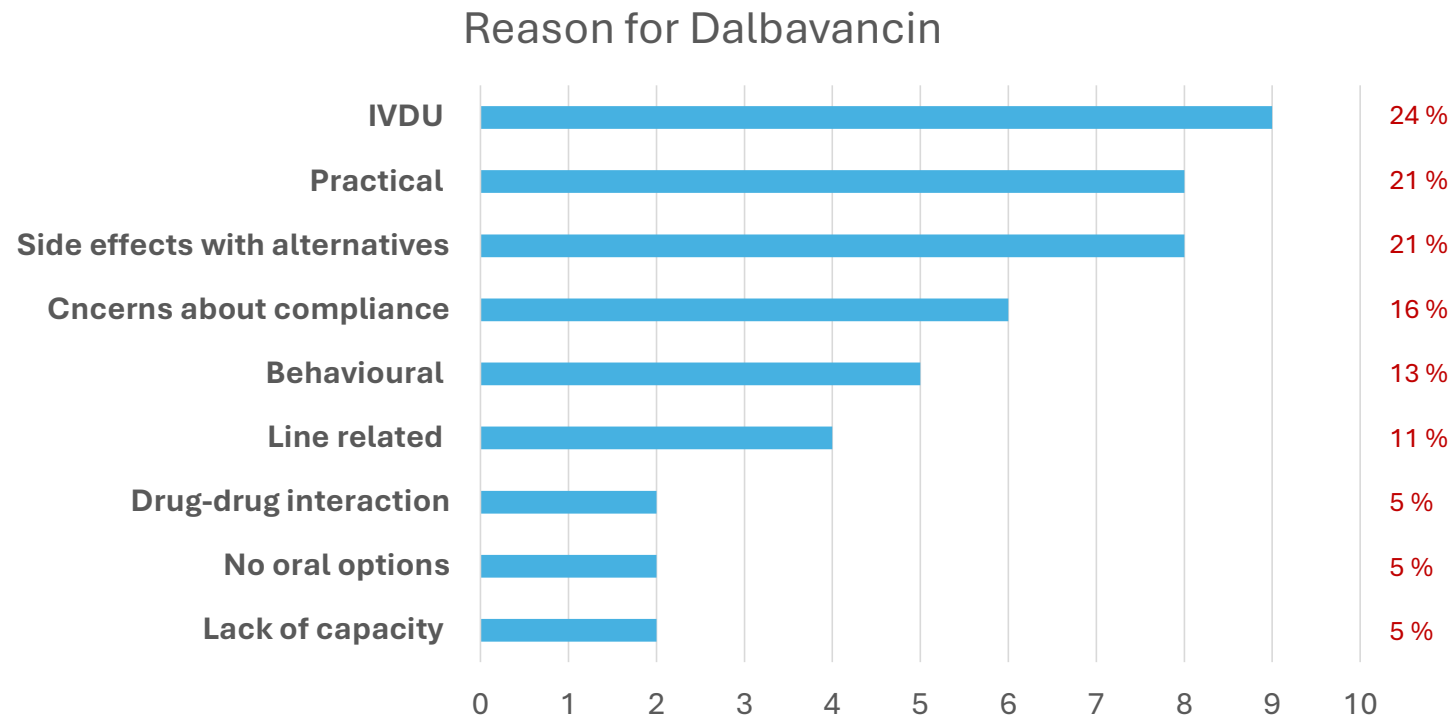
Microbiology



Context

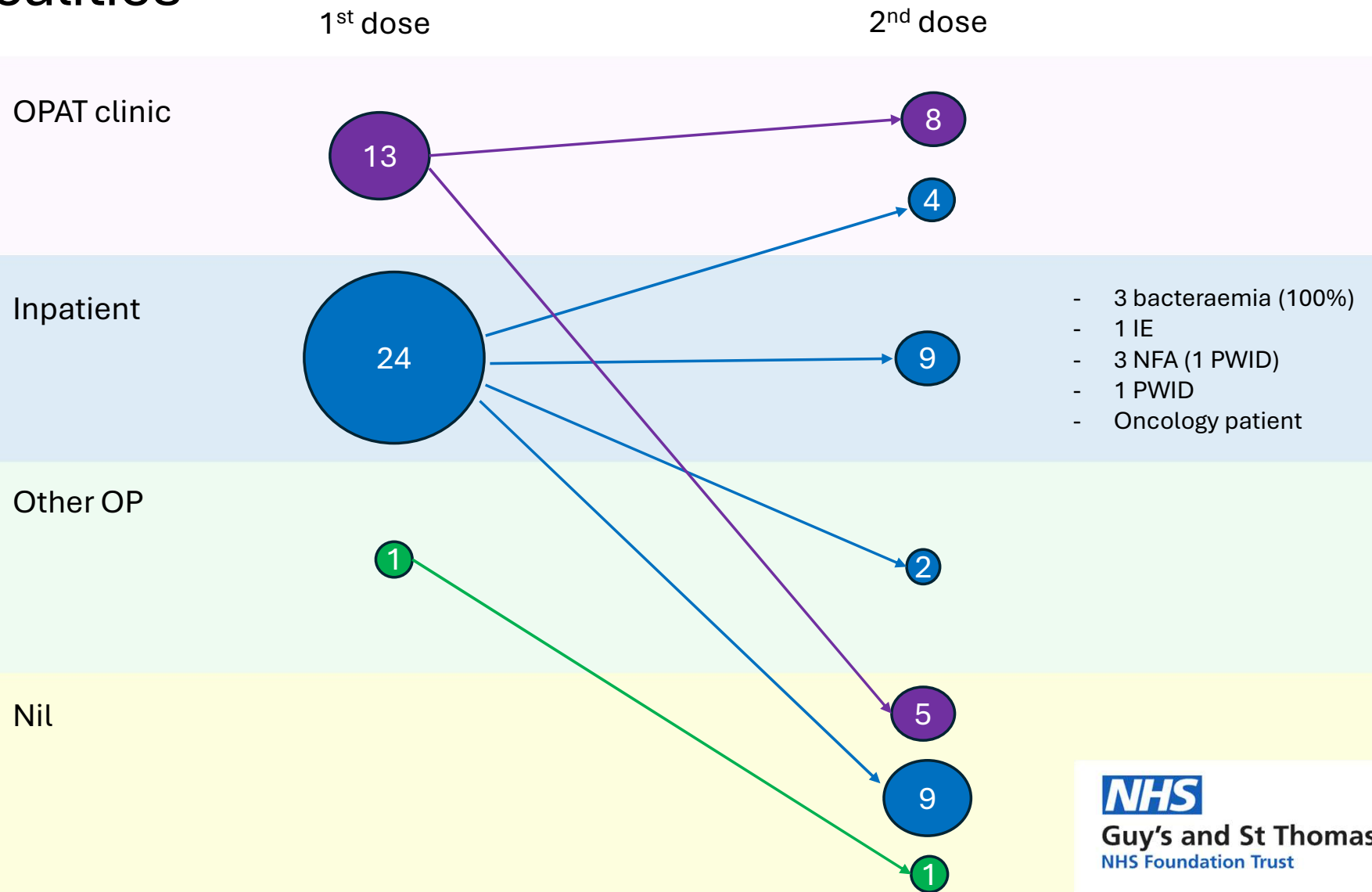
	Total patient episodes		BJI		DFI		SST		Pleural space		IE		Bacteraemia	
2018	1	189		75	1	34		7		3		5		2
2019	1	206	1	80		40		3		1		12		18
2020	0	200		70		45		5		1		10		6
2021	1	165		58		28		3		1		8	1	8
2022	6	180	5	62	1	28		11		2		10		12
2023	11	203	5	64	3	23		18	1	5	1	11	1	15
2024	18		11		4						2		1	

Alternatives



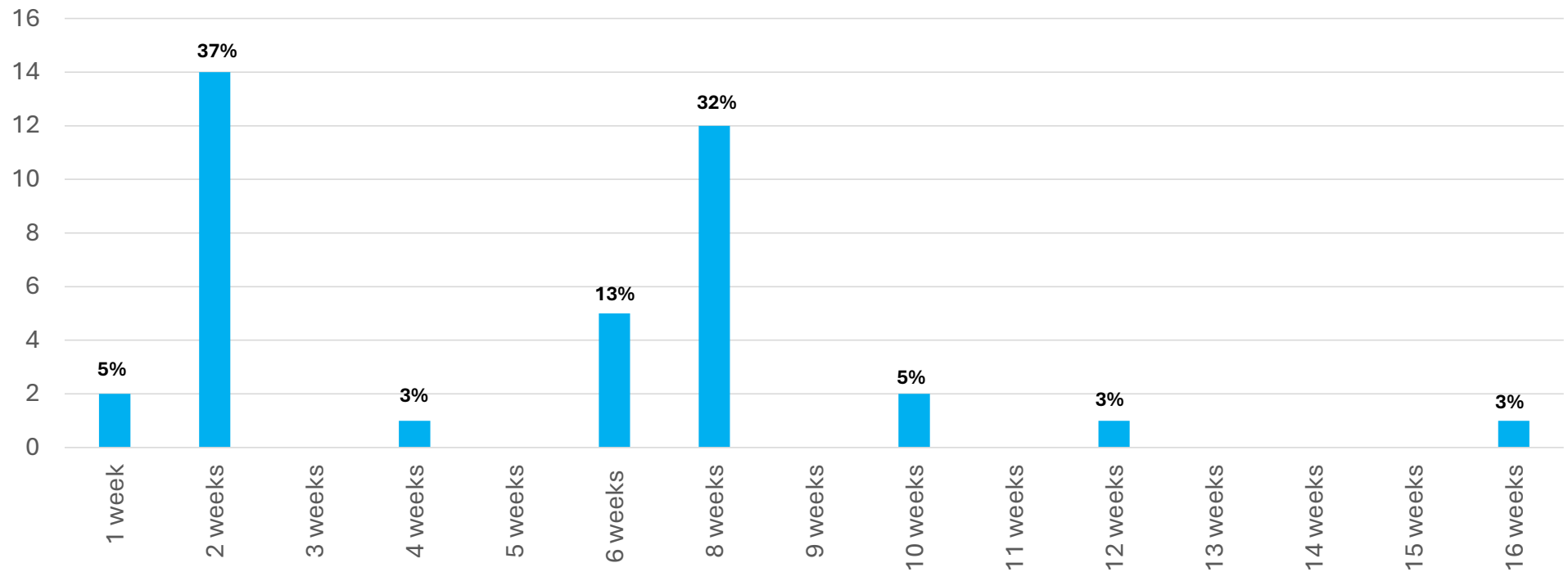
- 100% alternative discussed
- 97% tried alternative prior*

Practicalities



Duration

Effective duration of Dalbavancin (weeks)



Outcomes

Outcome	12m (n=14)	Total (n=38)
Cure	10	24
Relapse	2	5
LTFU	2	5
Death	-	1
Ongoing Dalbavancin	-	3

DNAs	Background	Outcome
1	IVDU	Cure
2	IVDU	LTFU
3	NFA/ abuse	LTFU
4	Oncology	Cure
5	NFA/ etoh	Ongoing
6	Nil	LTFU

Possible allergic reaction (non-severe): 1 patient


Risk →	Adverse drug reactions	Practicalities			Healthcare service requirements				Patient factors	
Assessment criteria →	Adverse drug reactions	Mode of admin	Frequency of admin	Hospital visits per week	Bloods	Clinical review	Other monitoring	Community nursing required	Relies on patient compliance	Suitable for PWID
Doxycycline		PO	BD	None	None	No	None	No	Yes - daily	Yes
Co-trimoxazole		PO	BD	None	Every 2-4 weeks	No	Renal function	No	Yes - daily	Yes
Teicoplanin		IV	OD	One	Weekly	Yes	Levels, renal function	Yes	Yes – but supported	No
Linezolid		PO	BD	None	Every 2-4 weeks	No	FBC	No	Yes - daily	Yes
Daptomycin		IV	OD	One	Weekly	Yes	Renal function, CK	Yes	Yes – but supported	No
Tedizolid*		PO	OD	None	Every 2-4 weeks	No	No	No	Yes - daily	Yes
Dalbavancin		IV	Every 2 weeks	Every 2 weeks	Every 2-4 weeks	Yes	None	No	No	Yes

Question

- If you needed long course of antibiotics
 - Assume efficacy equal
 - Assume costs equivalent
- **IV Teicoplanin?**
- **IV Dalbavancin?**
- **IV Daptomycin?**
- **PO Linezolid?**

Cost of alternatives (per day)

As per BNF. Note that Trusts may have differing locally agreed contract prices



25p	47p	£14.60*	£68	£79.8	£88-124**	£143.60
Doxycycline caps 200mg OD	Co-trimoxazole tabs 960mg BD	Teicoplanin IV 400mg vial x2	Linezolid tabs 600mg BD	Dalbavancin IV 1500mg x2/42	Daptomycin IV 500mg vial 350mg vial x2	Tedizolid tabs/IV 200mg OD

Other costs:

£400 – Inpatient stay / day
 £30 – District nurse (band 6/7) visit x1
 £10 – Consumables to administer IVs
 £720 – OPAT clinic / week

* Teicoplanin ~10mg/kg 70kg rounded to vial size

** Daptomycin ~8mg/kg 70kg rounded to vial size



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Is this money well spent?

Costs - totals	2 weeks	6 weeks	8 weeks
Inpatient stay (not including drugs)	£5,600	£16,800	£22,400
Doxycycline (PO)	£4	£11	£14
Co-trimoxazole (PO)	£7	£20	£26
Teicoplanin (IV, DN admin)	£2,204	£6,613	£8,818
Linezolid (PO)	£952	£2,856	£3,808
Daptomycin (IV, DN admin)	£3,232	£9,696	£12,928
Tedizolid (PO)	£2,010	£6,031	£8,042
Dalbavancin (IV, OPAT clinic admin)	£1,837	£4,792	£6,629

In summary



- Increasing use year on year
- 24% IVDU
- Inpatient use high
- Cost – community vs hospital
- Immeasurable costs
- Patient experience / choice
- TDM
- AMR

Acknowledgements

- Carolyn Hemsley
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