AZIENDA OSPEDALIERO UNIVERSITARIA PISANA

UNIVERSITÀ DI PISA

Infezioni cute e tessuti molli 2024

Marco Falcone

Division of Infectious Diseases, Department of Clinical and Experimental Medicine, University of Pisa (Italy)

Disclosures

Dr Marco Falcone participated to advisory boards for Pfizer, Shionogi, Menarini, MSD.

Received personal fee for speaking bureau from Shionogi, Menarini, Angelini, Nordic Pharma, Pfizer.

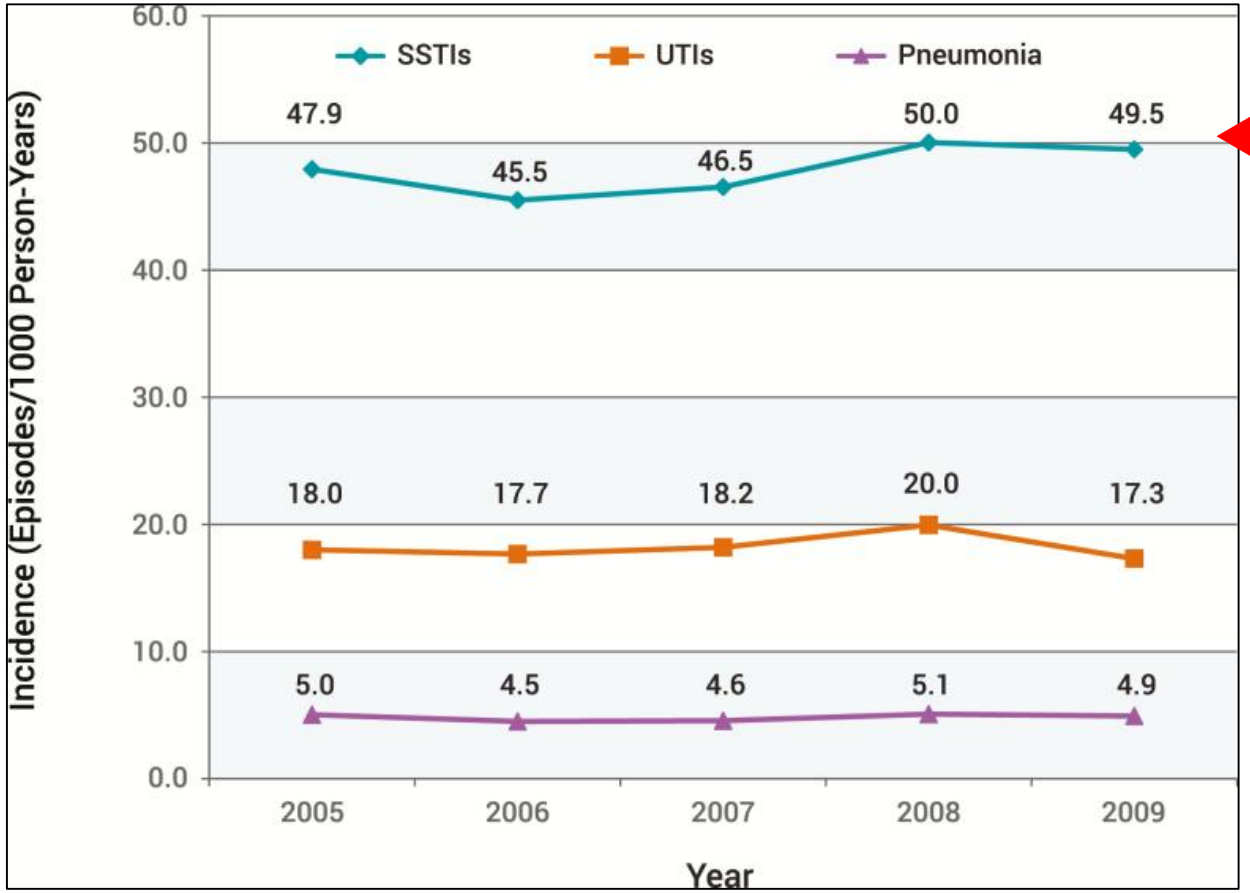
Received research grant from MSD and Menarini

Clinical Infectious Diseases

SUPPLEMENT ARTICLE

Current Epidemiology, Etiology, and Burden of Acute Skin Infections in the United States

Keith S. Kaye,[1] Lindsay A. Petty,[1] Andrew F. Shorr,[2] and Marya D. Zilberberg[3,4]



Incidence of skin and soft tissue infections, urinary tract infections, and pneumonia: 2005–2009

2.3 million cases

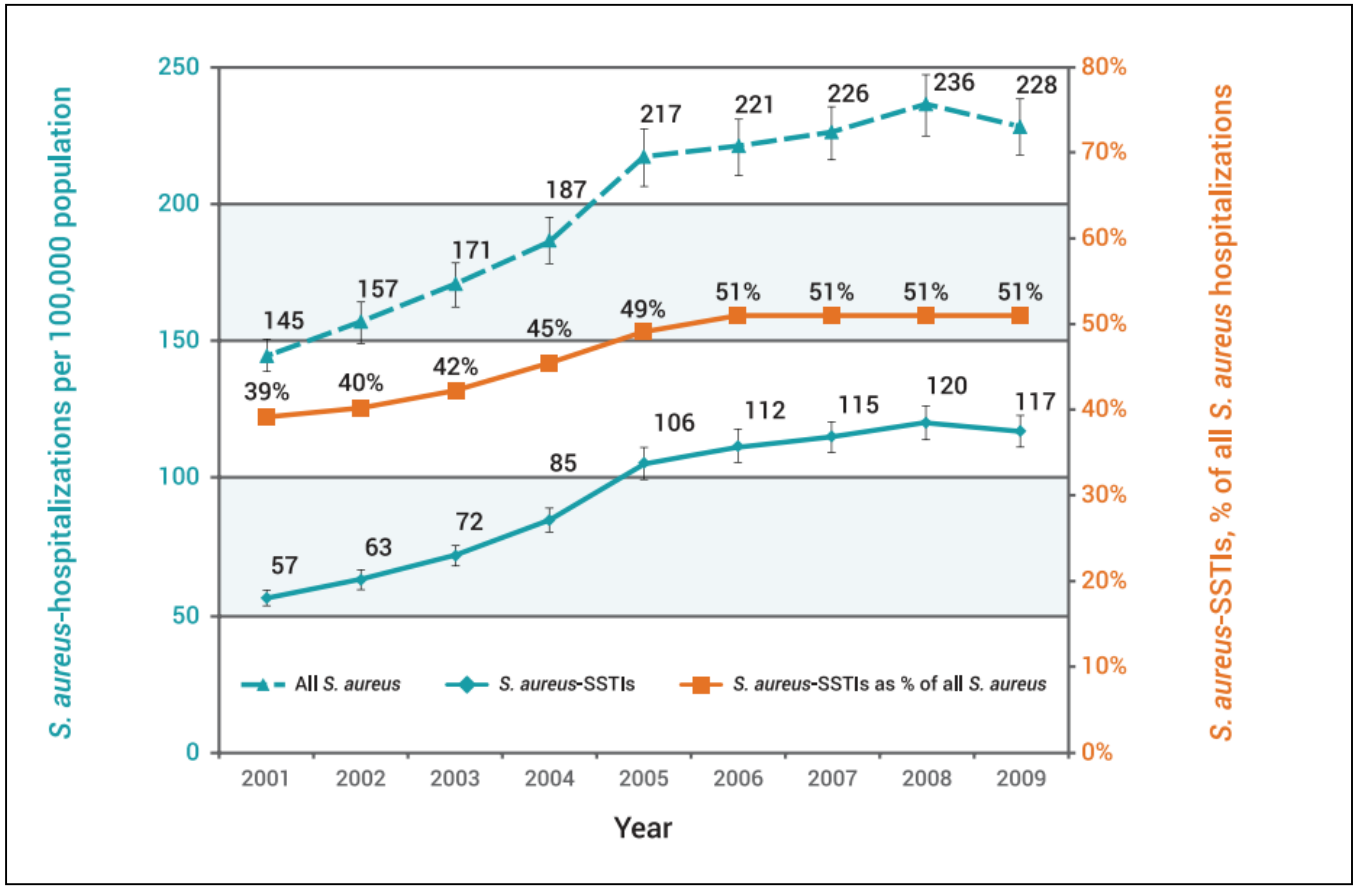
Clin Infect Dis. 2019;68:S193-S199

Clinical Infectious Diseases

SUPPLEMENT ARTICLE

Current Epidemiology, Etiology, and Burden of Acute Skin Infections in the United States

Keith S. Kaye,[1] Lindsay A. Petty,[1] Andrew F. Shorr,[2] and Marya D. Zilberberg[3,4]

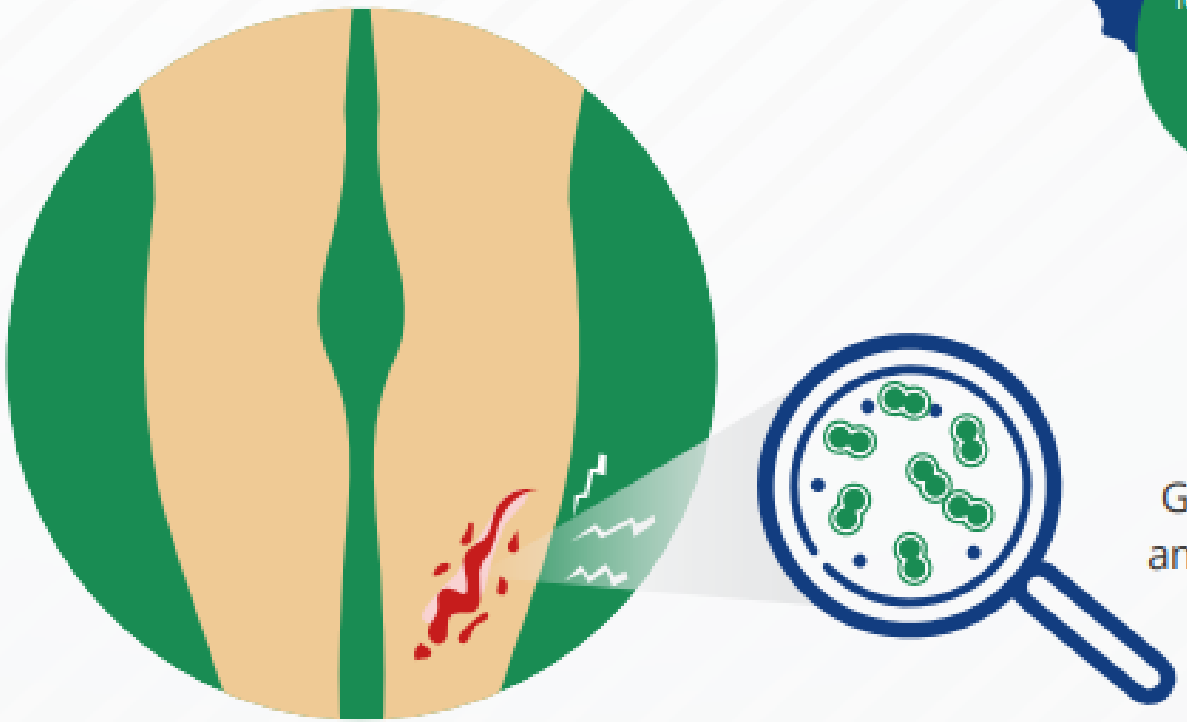


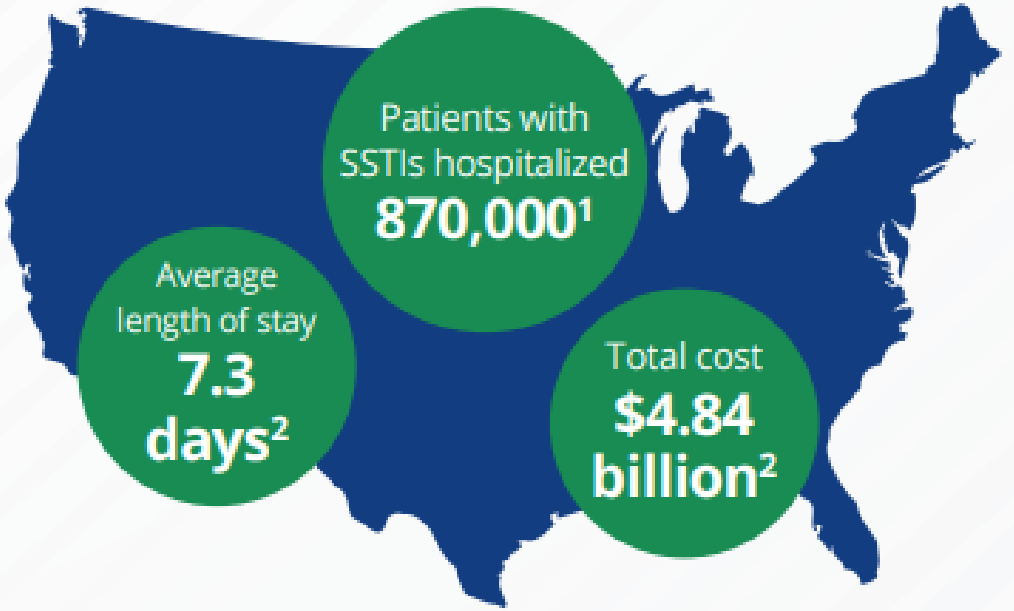
Incidence of all *S. aureus* hospitalizations and those due to skin and soft tissue infections in the United States: 2001–2009

Clin Infect Dis. 2019;68:S193-S199

What is its real-world clinical impact?

Patients presenting with serious skin and soft tissue infections (SSTIs) are often hospitalized to receive antibiotic treatment





1. Edelsberg *et al.* Trends in US hospital admissions for skin and soft tissue infections. Emerg Infect Dis. 2009

2. Suaya *et al.* Incidence and cost of hospitalizations associated with *Staphylococcus aureus* skin and soft tissue infections in the United States from 2001 through 2009. BMC Infect Dis. 2014

Some of these SSTIs include infections by Gram-positive bacteria, including methicillin-sensitive and methicillin-resistant *Staphylococcus aureus* (MRSA)

Acute bacterial skin and skin structure infections (ABSSSI) are advanced forms of SSTIs

Talan DA, Acad Emerg Med. 2021;28:1108-1117

Classification of SSTIs

Cutaneous

Epidermis

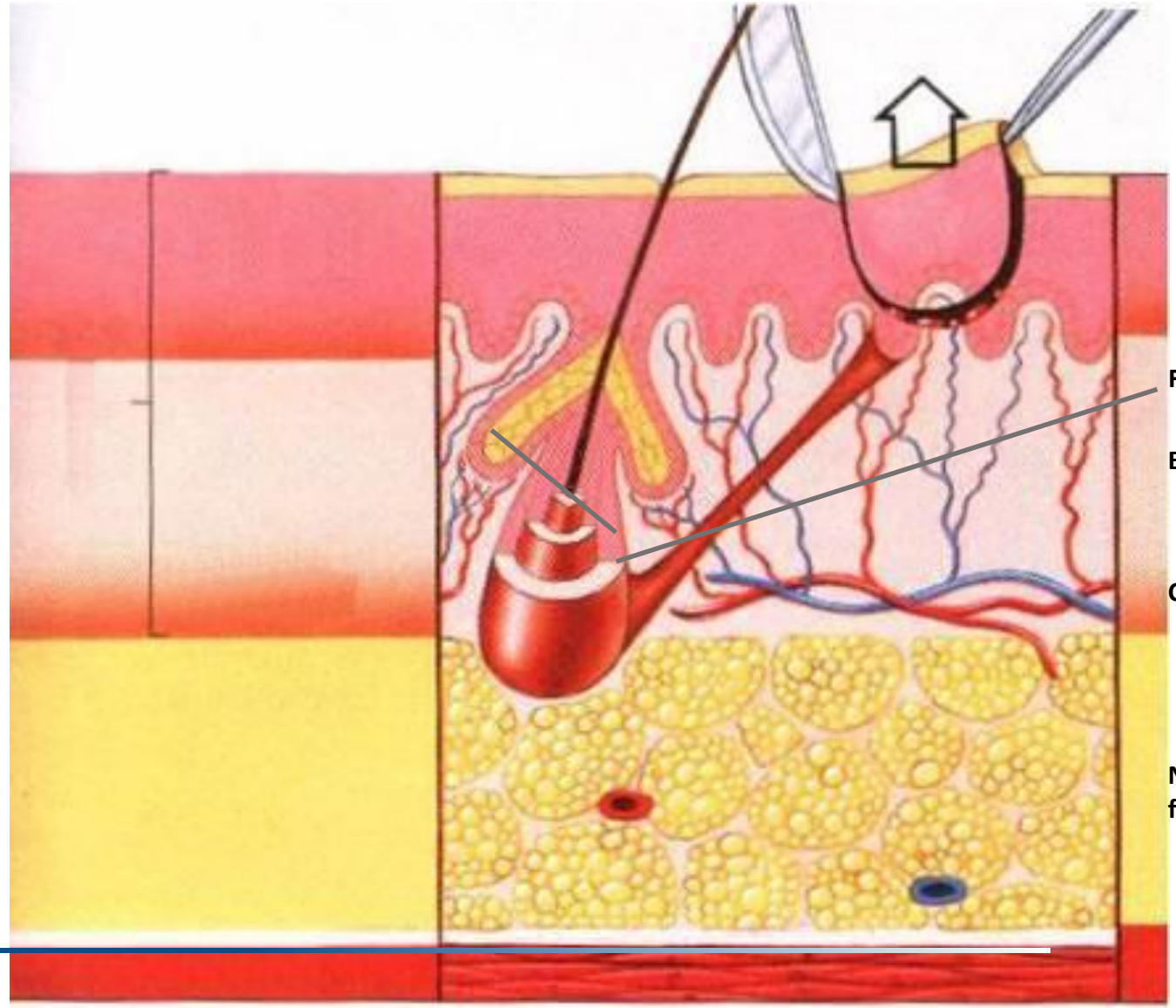
Hair follicle

Dermis

Subcutaneous fat

Fascia

Muscle

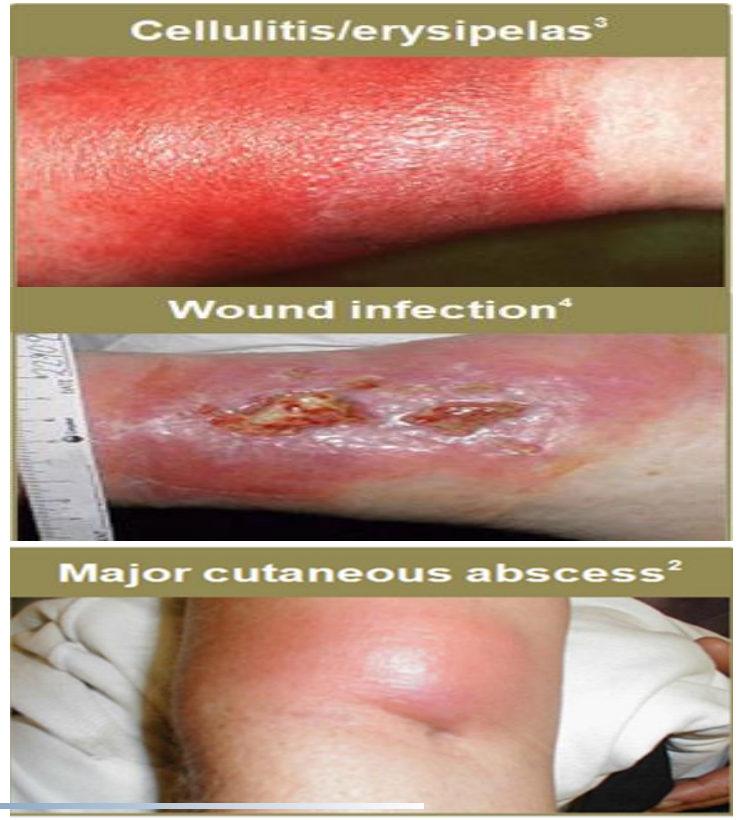


	Etiologic organisms
Impetigo	*Staphylococcus aureus* *Streptococcus pyogenes*
Folliculitis	*S. aureus*
Erysipelas	*S. pyogenes*
Cellulitis	*S. pyogenes* *S. aureus* *Haemophilus influenzae* Other
Necrotising fasciitis	*S. pyogenes* Mixed bowel flora

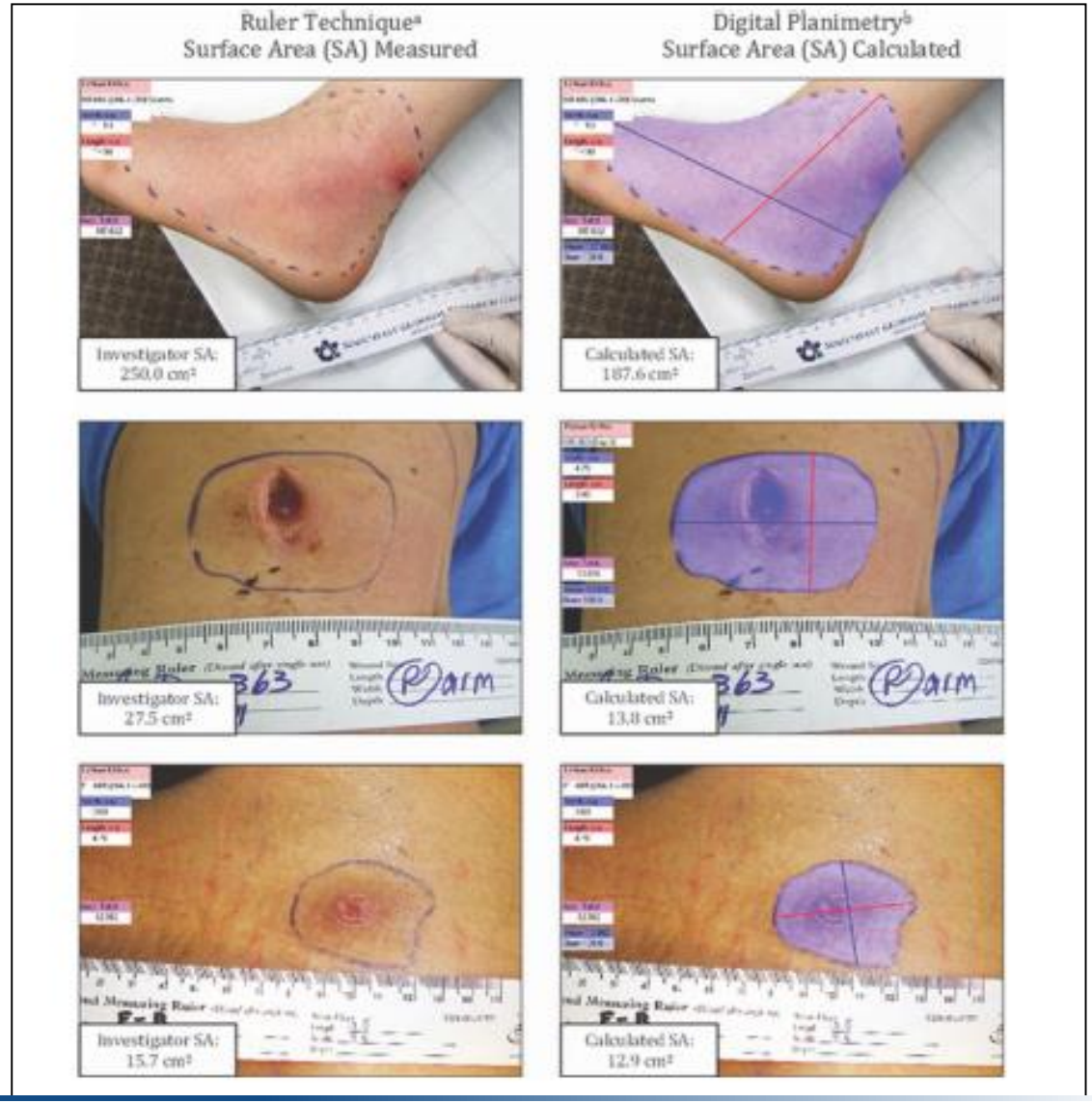
New FDA definition of ABSSSI 2013

Acute bacterial skin and skin structure infections (ABSSSI) are defined as a bacterial infectiosn of the skin with a lesion size area of at least 75 cm^2 (lesion size measured by the area of redness, edema, or induration)

- **Cellulitis/erysipelas**: A diffuse skin infection characterized by spreading areas of redness, edema, and/or induration
- **Wound infection**: An infection characterized by purulent drainage from a wound with surrounding redness, edema, and/or induration
- **Major cutaneous abscess**: An infection characterized by a collection of pus within the dermis or deeper that is accompanied by redness, edema, and/or induration



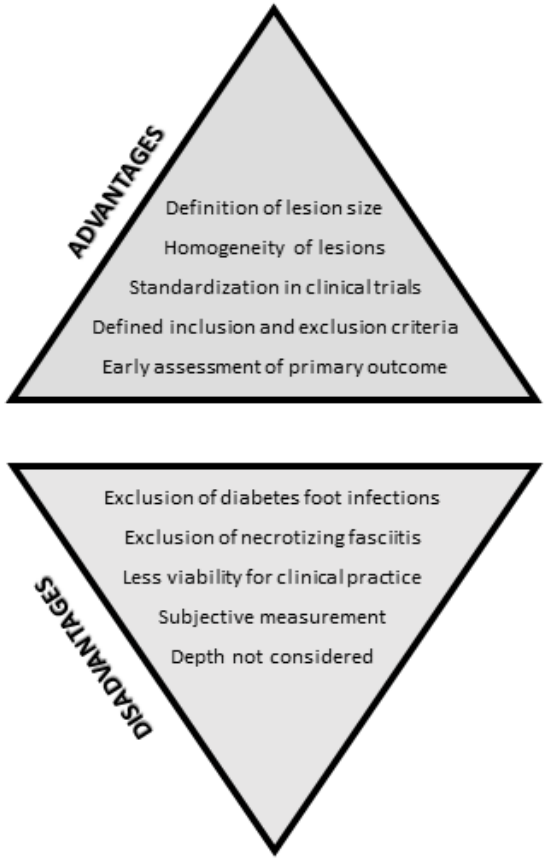
Methods of measuring lesions size



Bien et al, Surgical Infections, 2014; 15:105-10

Advantages and disadvantages of new classification

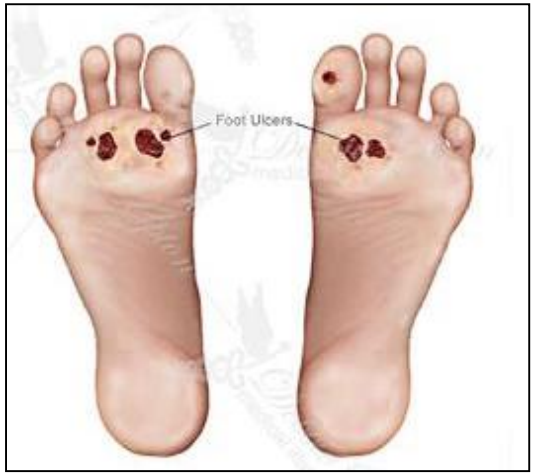
FDA 1998	FDA 2013
SSTI or SSSI complicated if: • Involve deep soft tissue • Require surgical intervention • In presence of underlying disease complicating treatment response	**ABSSSI** Revised nomenclature and improve of previous 2010 FDA definition
• **uSSTI:** Cellulitis, Impetigous lesions, furuncles, simple abcesses • **cSSTI:** infected ulcers, infected burns, major abscesses	**ABSSSI** •Cellulitis/erysipelas •Wound infection •Major cutaneous abscess
No minimal size required	**ABSSSI=** bacterial infection of the skin with a lesion size area of at least 75 cm^2
Major abscesses not defined	**Minor abscess: <75 cm^2** **Major abscess: ≥75 cm^2**
Systemic signs of infection not required	**Not required fever (as 2010 FDA)** in order to not understimate elderly, diabetics, immunocompromised
Primary endpoint Clinical cure at test of cure visit (7-14 days after end of therapy)	**Primary endopoint** % reduction in the lesion size greater than or equal to 20% at 48 to 72 hours compared to baseline

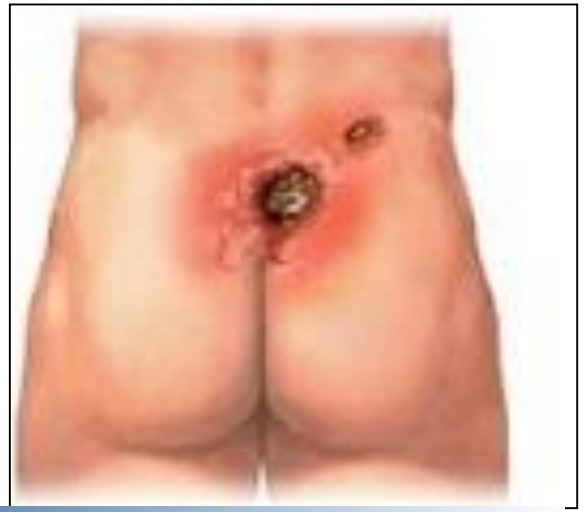


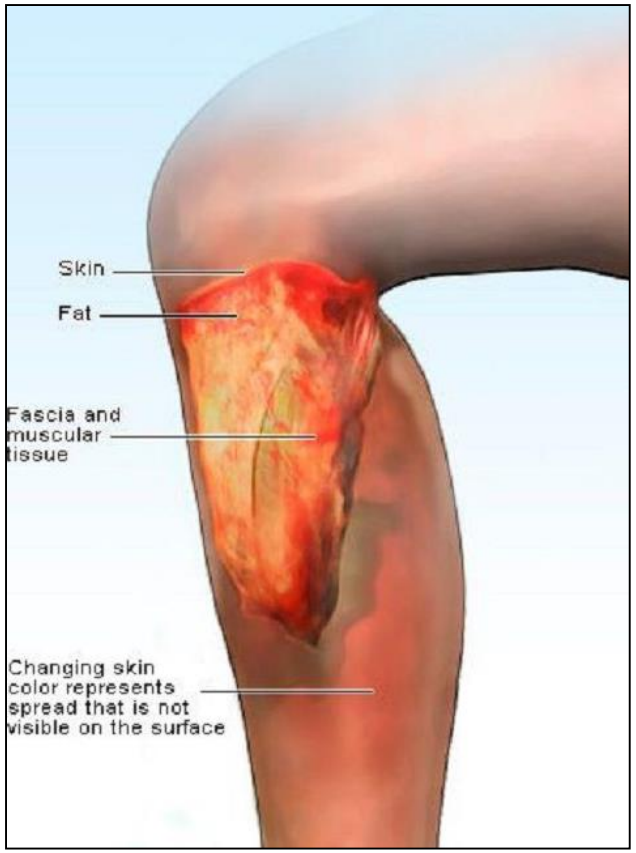
Falcone M, et al. *Intern Emerg Med* 2016; 11: 637-48.

Limits of 2013 FDA Guidance
Which role for some severe entities?

- Necrotizing fasciitis
- Diabetic foot infections
- Decubitus ulcers
- Catheter site infections
- Myonecrosis
- Ecthyma gangrenosum







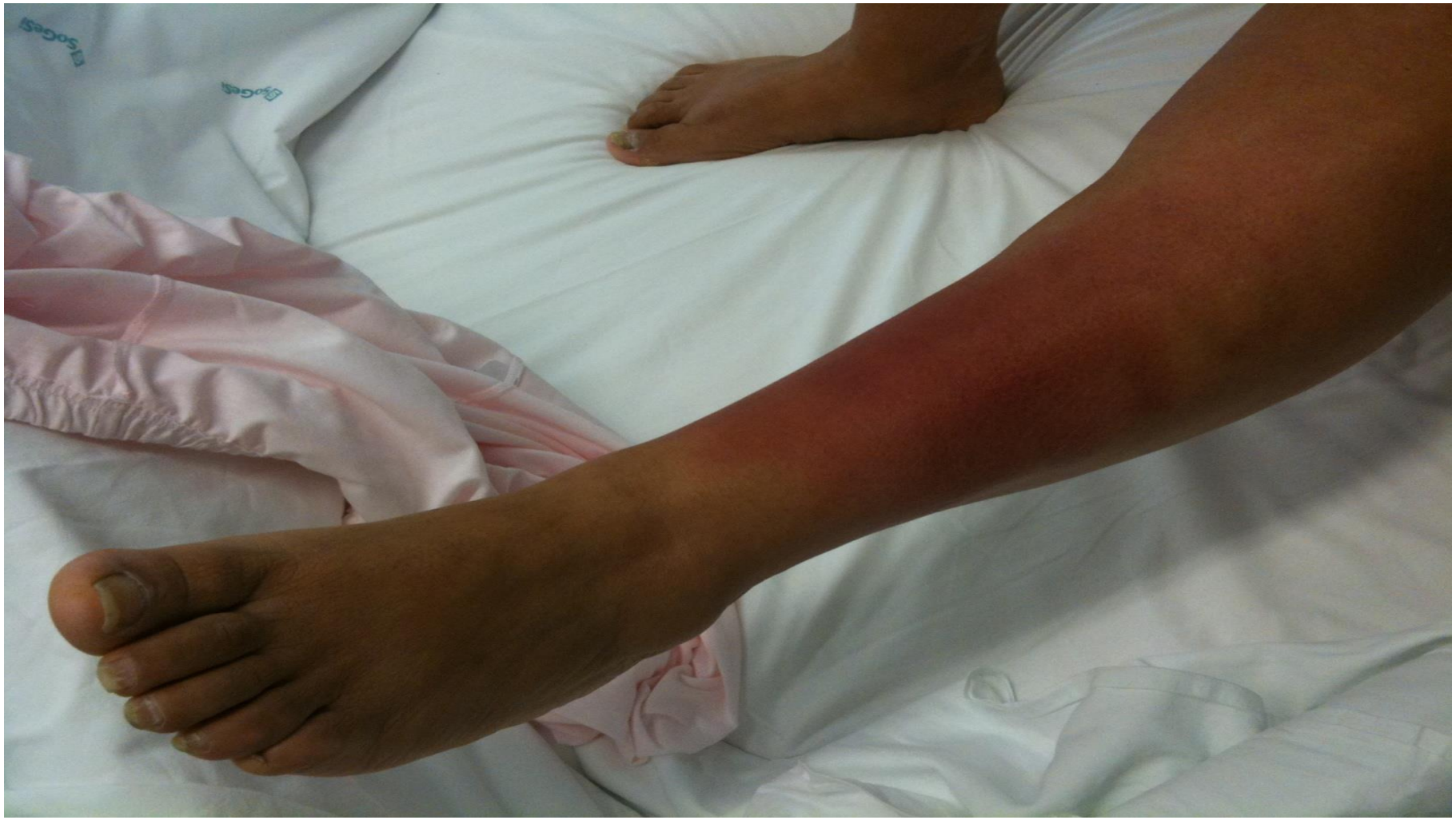
Systemic risk factors for cSSTI

- Malnutrition
- Diabetes
- Obesity
- Chronic renal failure
- Malignancy
- Immunosuppression
- Older age
- Cardiovascular disease
- Smoking

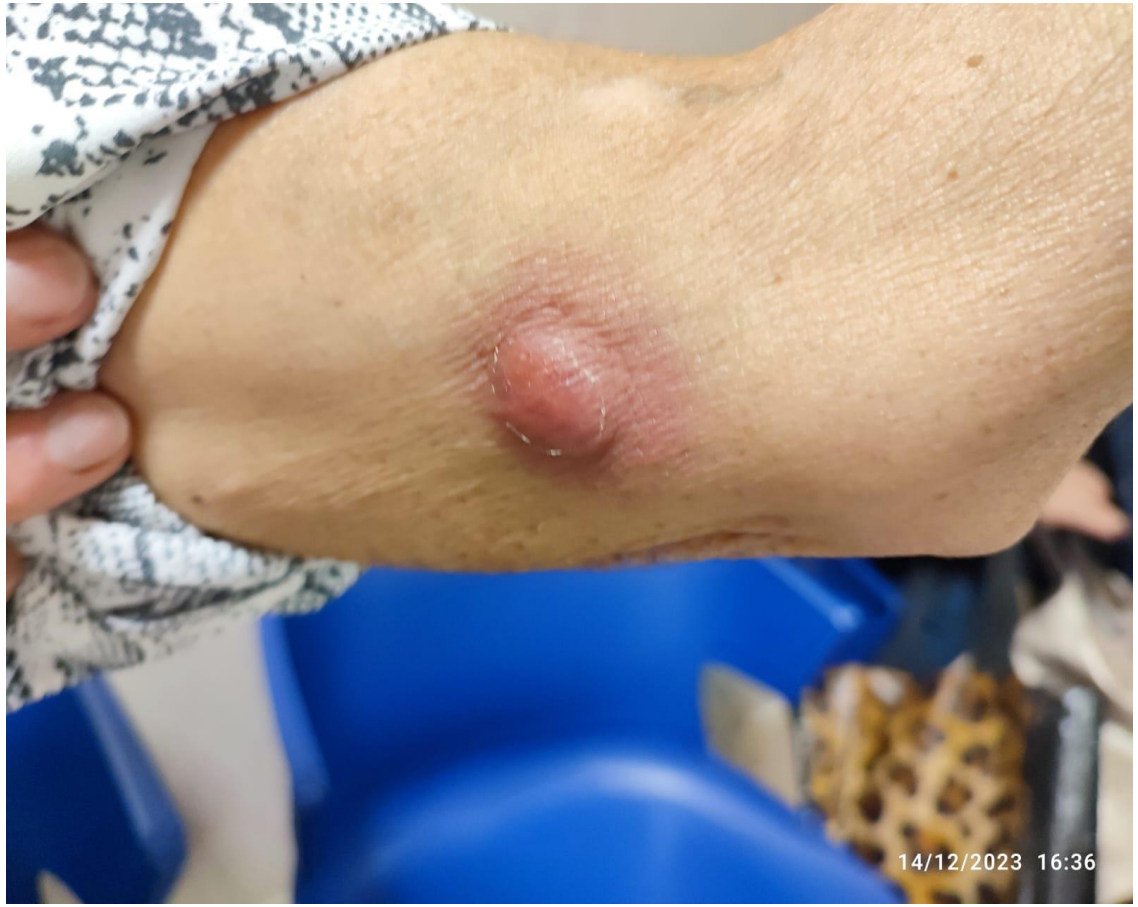
SSTI: Aetiology

	MSSA	MRSA	Gram+	Gram-	Anaer
Impetigo					
Erysipelas					
Cellulitis					
Abscesses					
Furuncles					
Fasciitis					
Pyomyositis					
Bites					
DFI					

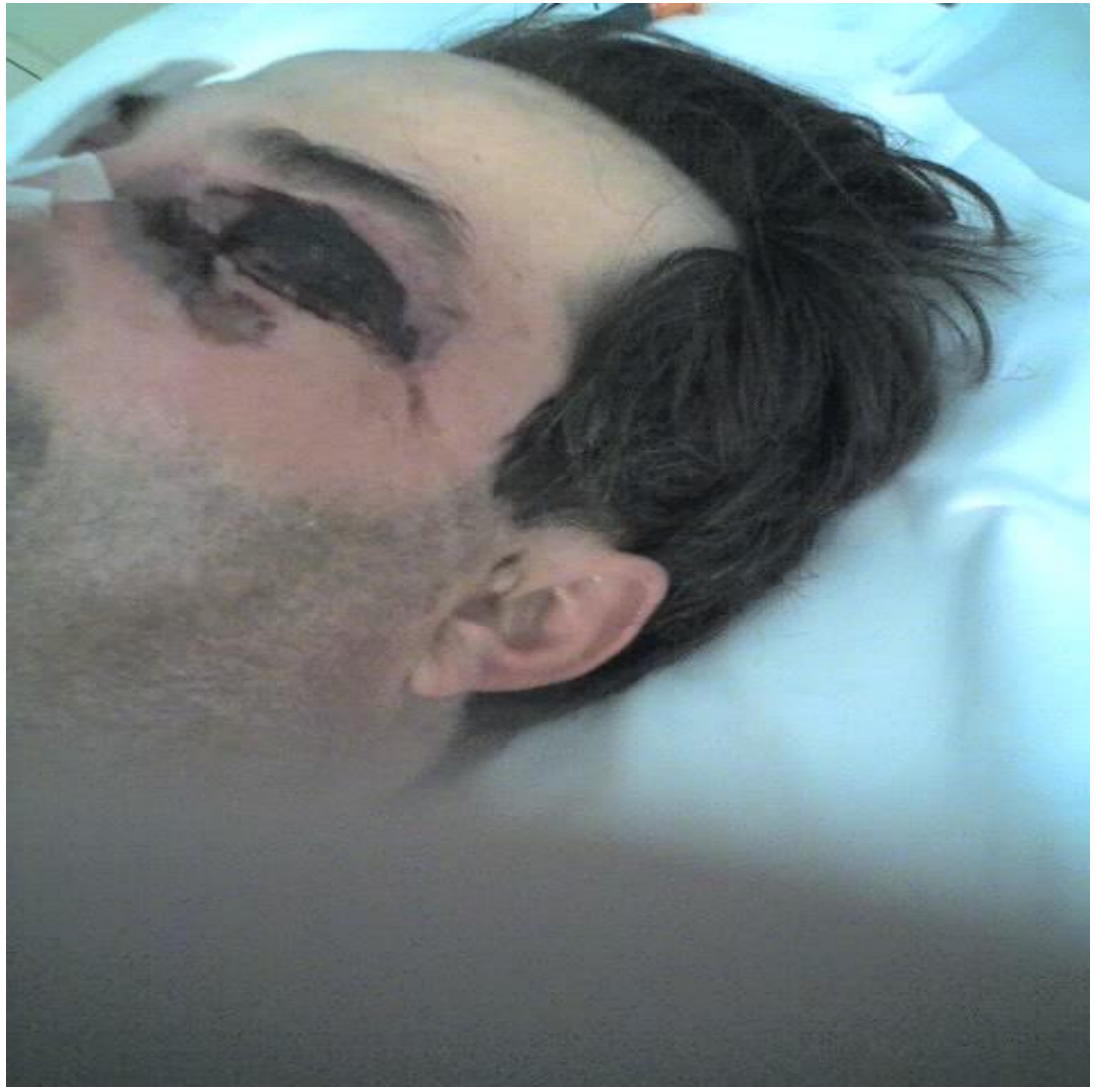
Erisipela in obesa



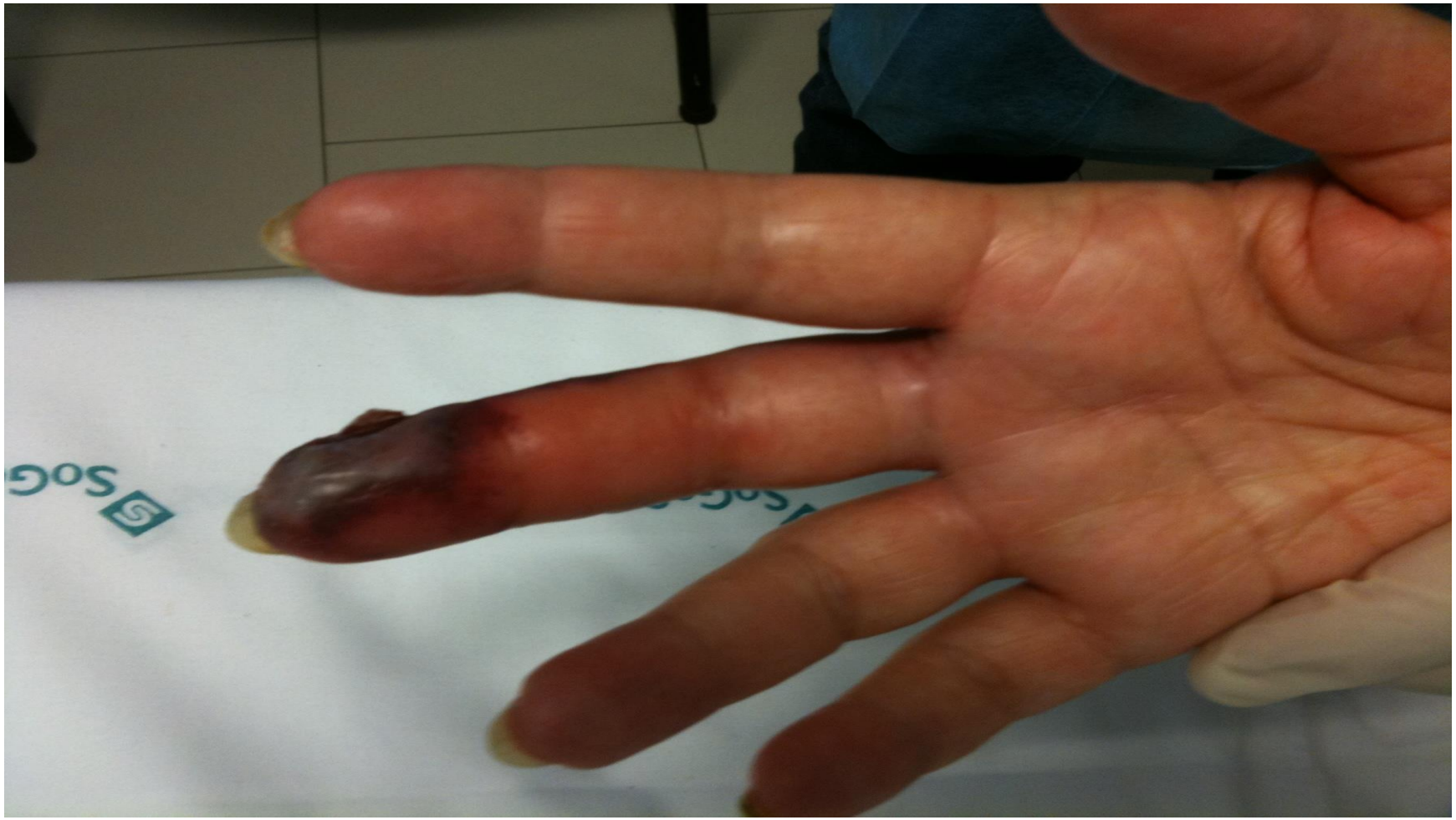
Lesioni cutanee da *Mycobacterium marinum*



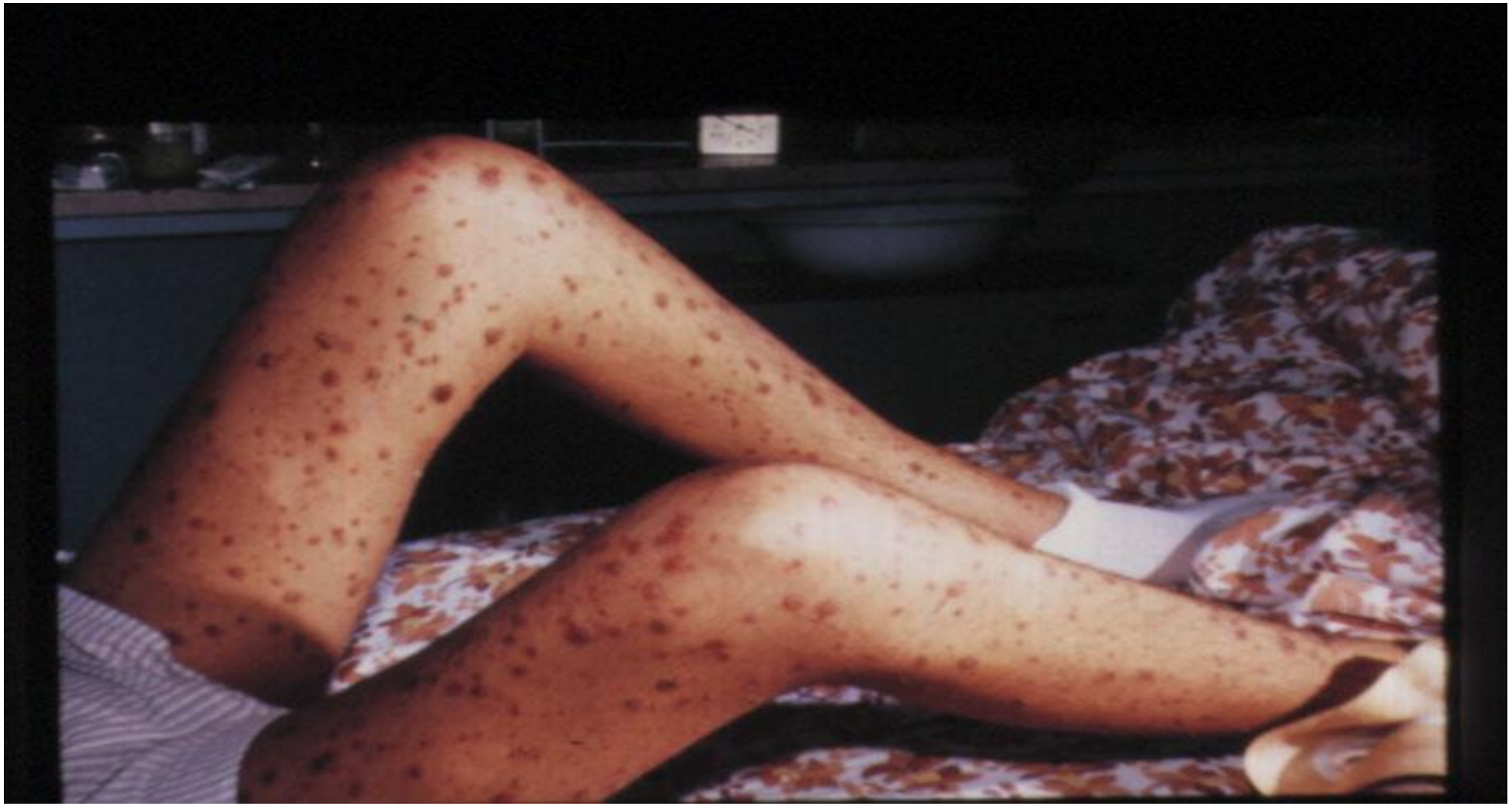
Ectima palpebrale da *P. aeruginosa* in neutropenico



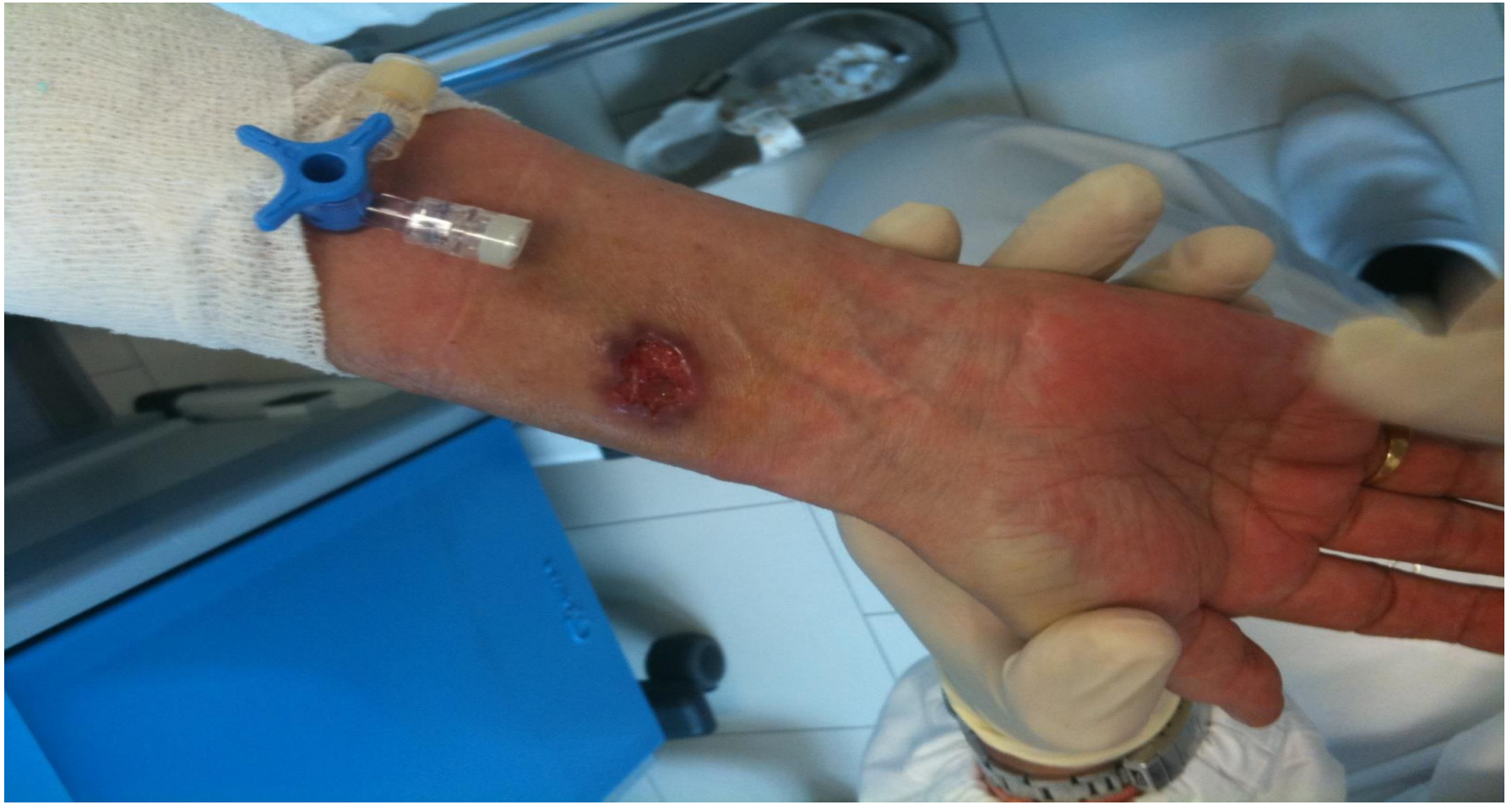
Ectima in leucemica



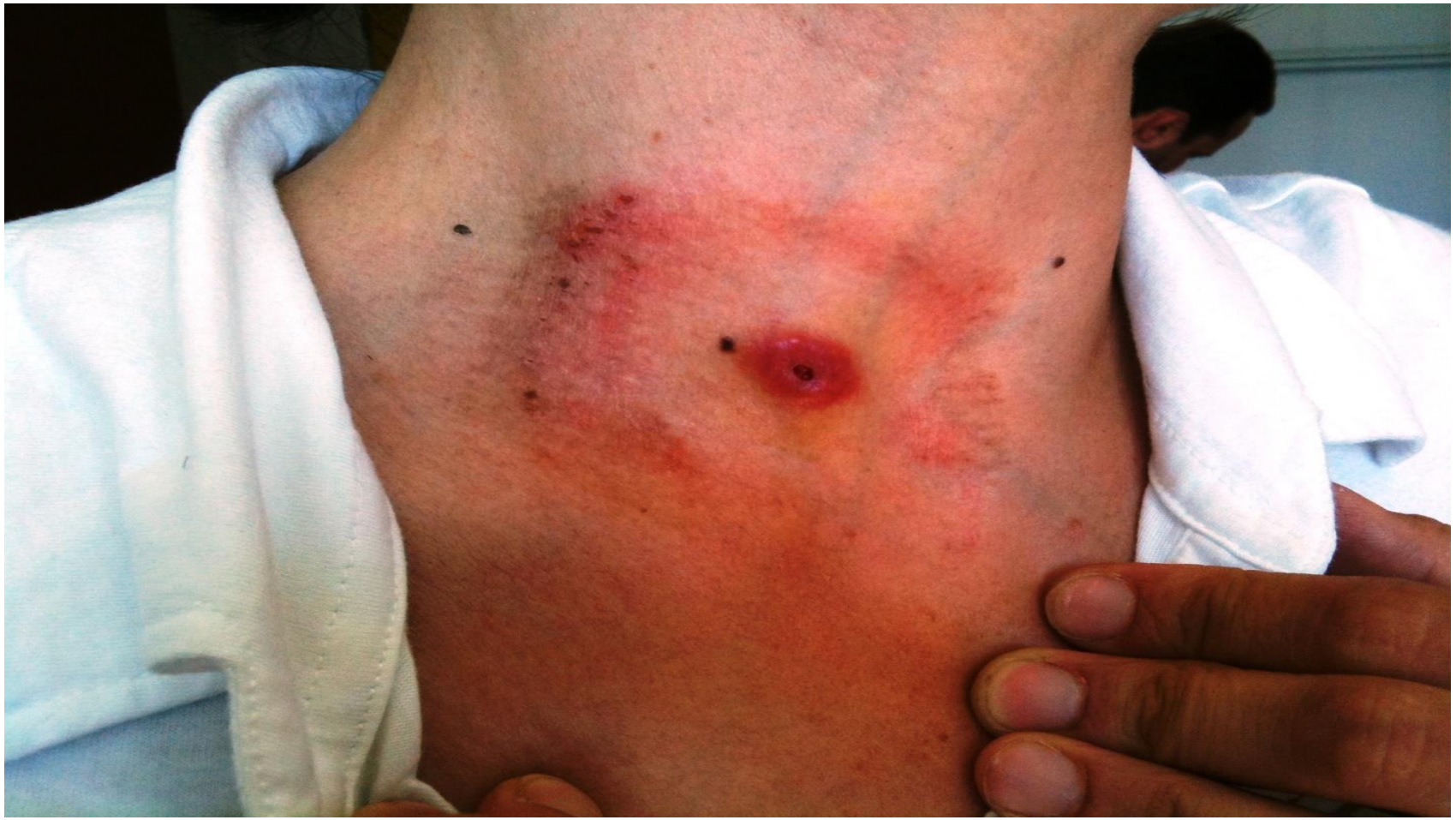
Fusariosi disseminata in leucemico



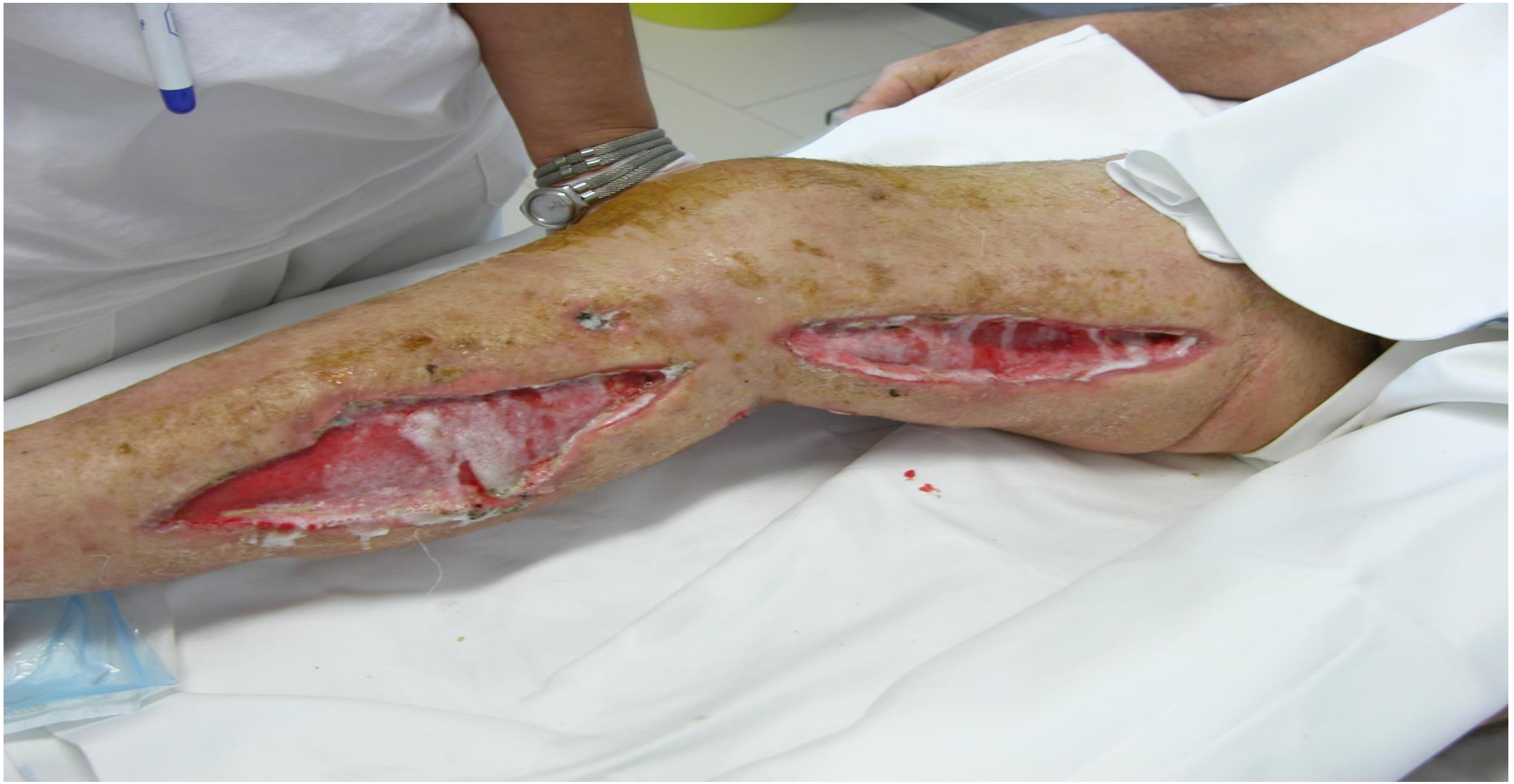
Nocardiosi cutanea e polmonare in paziente con leucemia linfatica cronica e ipogammaglobulinemia in terapia steroidea



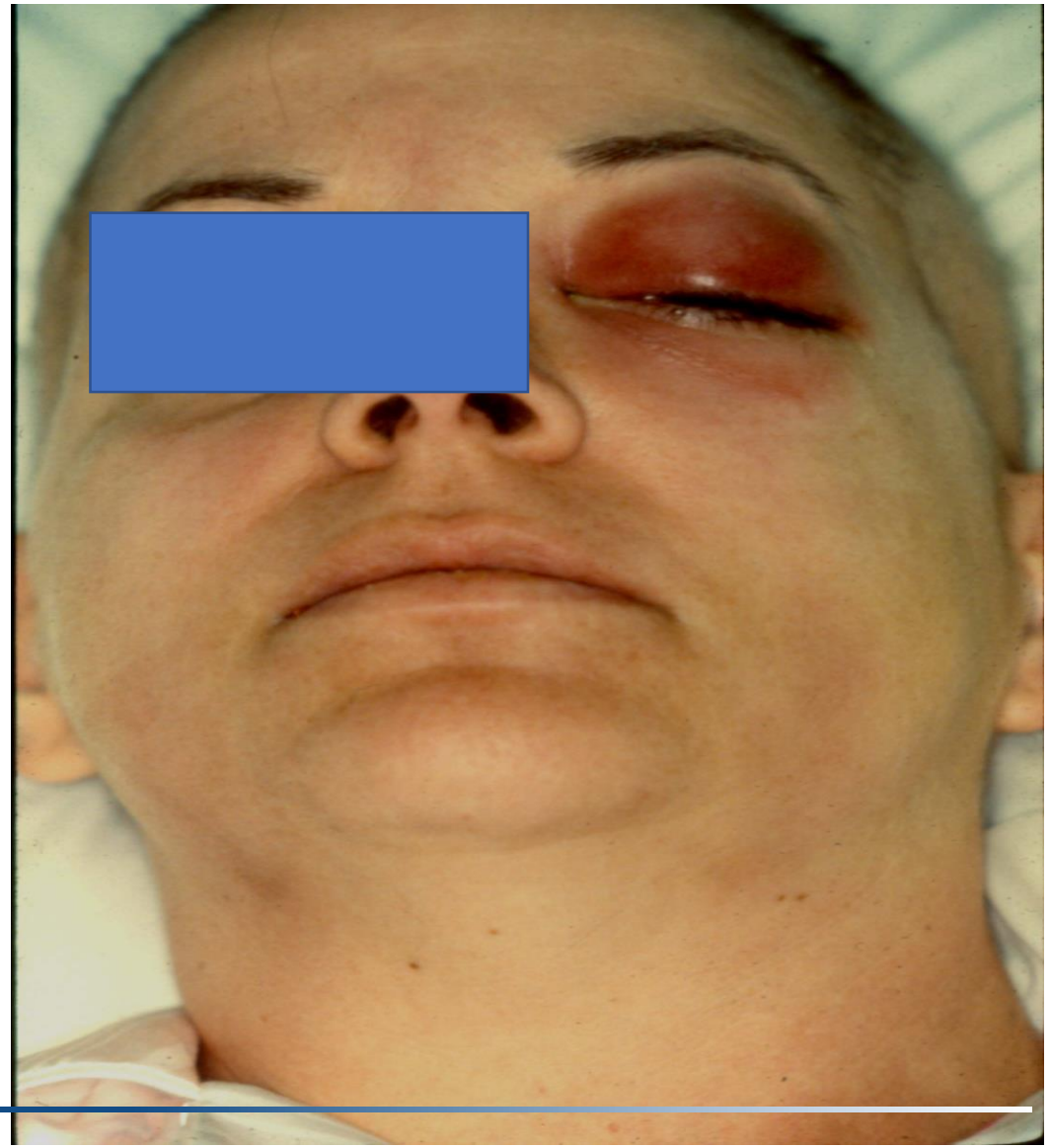
Criptococcosi cutanea in deficit criptogenetico di CD4



Necrotizing fasciitis type II, group A streptococci



Cellulite orbitaria da Mucor



Skin and soft tissue infections:

Treatment

Established anti-MRSA treatment options

	Mechanism	Coverage	Indication	Route
Vancomycin/ teicoplanin	Inhibition of cell wall synthesis	Gram-positive bacteria	Serious Gram-positive infections that are unresponsive to other antibiotics	IV, IM
Linezolid	Inhibition of bacterial protein synthesis	Staphylococci (incl. MRSA) Enterococci (incl. VRE), Streptococci	SSTIs caused by susceptible Gram-positive pathogens	IV or ORAL
Clindamycin	Lincosamide antibiotic (protein synthesis Inhibitor)	Gram-positive bacteria, anaerobes	Serious SSSI	IV or ORAL
Daptomycin	Disruption of bacterial cell membrane function	Gram-positive bacteria	SSTIs caused by susceptible Gram-positive pathogens	IV
Tigecycline	Inhibition of bacterial protein synthesis	Active against many Gram-positive bacteria, Gram-negative bacteria (no *Pseudomonas*) and anaerobes	SSTIs caused by susceptible Gram-positive and -negative pathogens	IV
Ceftaroline	Inhibition of cell wall synthesis	Active against Gram-positive bacteria, Enterobacteriaceae (no ESBL). NO activity vs *Pseudomonas*	SSTIs caused by susceptible Gram-positive and -negative pathogens	IV
Dalbavancin	Lipoglycopeptide antibiotic (cell-wall synthesis inhibitor)	Active against Gram-positive bacteria	ABSSSI	IV
Oritavancin	Lipoglycopeptide (cell-wall synthesis inhibitor)	Active against Gram-positive bacteria	ABSSSI	IV
Tedizolid phosphate	Oxazolidinone (protein synthesis inhibitor)	Active against Gram-positive bacteria	ABSSSI	IV or ORAL

Antibiotics for MRSA ABSSSI/SSTIs have different pharmacokinetic profiles

	Parameter		
	Volume of distribution	Protein binding	Hydrophilic / lipophilic
Linezolid	40-50 L[1]	31%[1]	Hydrophilic[2]
Vancomycin	0.43-0.9 L/kg[3]	30-55%[3]	Hydrophilic[2]
Teicoplanin	0.94-1.4 L/kg after 3-6 mg/kg[4]	90-95% (with weak affinity)[5]	Hydrophilic[2]
Daptomycin	0.1 L/kg[6]	~90%[6]	Hydrophilic core, lipophilic tail[7]
Tigecycline	>10 L/kg[8]	71-89%[9]	Lipophilic[2]
Ceftaroline	~20 L[10]	~20%[10]	Hydrophilic[2]
Dalbavancin	~10 L	93%	Hydrophilic[2]
Oritavancin	1 L/Kg	85-90%	Hydrophilic[2]
Tedizolid	140-150 L	70-90%	Hydrophilic[2]

Antibiotics for MRSA ABSSSI/SSTIs have different tissue penetration

	Molecular weight	Ratio of skin and soft tissue: plasma penetration	Route
Linezolid	337.35[1]	104%[7,a]	IV, IM
Vancomycin	1485.74[2]	10-30%[8,b]	IV or ORAL
Teicoplanin	1879.7[3]	24-77%[9,10,a]	IV or ORAL
Daptomycin	1620.674[4]	68%[11,a]	IV
Tigecycline	585.65[5]	380%[12,c]	IV
Ceftaroline	762.75[6]	Not available	IV
Dalbavancin	1853. 15[14]	59.6%[13]	IV
Oritavancin	1793.10[15]	Not available	IV
Tedizolid	370.337	110%[16]	IV or ORAL

1. ZYVOX® [package insert]. New York, NY: Pfizer Inc., 2012; 2. Vancomycin Hydrochloride [package insert]. Lake Forest, IL: Hospira, Inc., 2010; 3. Teicoplanin Complex [product data sheet]. Bioaustralis.com; 4. Cubicin [package insert]. Lexington, MA: Cubist Pharmaceuticals, Inc., 2010; 5. http://www.drugbank.ca/drugs/DB00560; 6. Saravolatz et al. Clin Infect Dis 2011;52:1156-63; 7. Gee et al. Antimicrob Agents Chemother 2001;45:1843-6; 8. Skhirtladze et al. Antimicrob Agents Chemother 2006;50:1372-5; 9. Wise et al. J Hosp Infect 1986;7 Suppl A:47-55; 10. de Lalla et al. Antimicrob Agents Chemother 1993;37:2693-8; 11. Wise et al. Antimicrob Agents Chemother 2002;46:31-3; 12. Stein et al. Surg Infect (Larchmt) 2011;12:465-7; 13. Nicolau et al J Antimicrob Chemotherr 2007 60, 681–684. 14. https://pubchem.ncbi.nlm.nih.gov/compound/86298757#section=Top. 15.https://pubchem.ncbi.nlm.nih.gov/compound/16136912. 16. Sahre et al. Int J Antimicrob Agents. 2012; 40: 51–54

Choice of antibiotic according to antibiotic stewardship

- Efficacy
- Tissue penetration
- Tolerability
- Interactions
- Need of combination therapy
- Switch therapy
- Early discharge

AMERICAN SOCIETY FOR MICROBIOLOGY | Antimicrobial Agents and Chemotherapy

Relationship between Adherence to Oral Antibiotics and Postdischarge Clinical Outcomes among Patients Hospitalized with *Staphylococcus aureus* Skin Infections

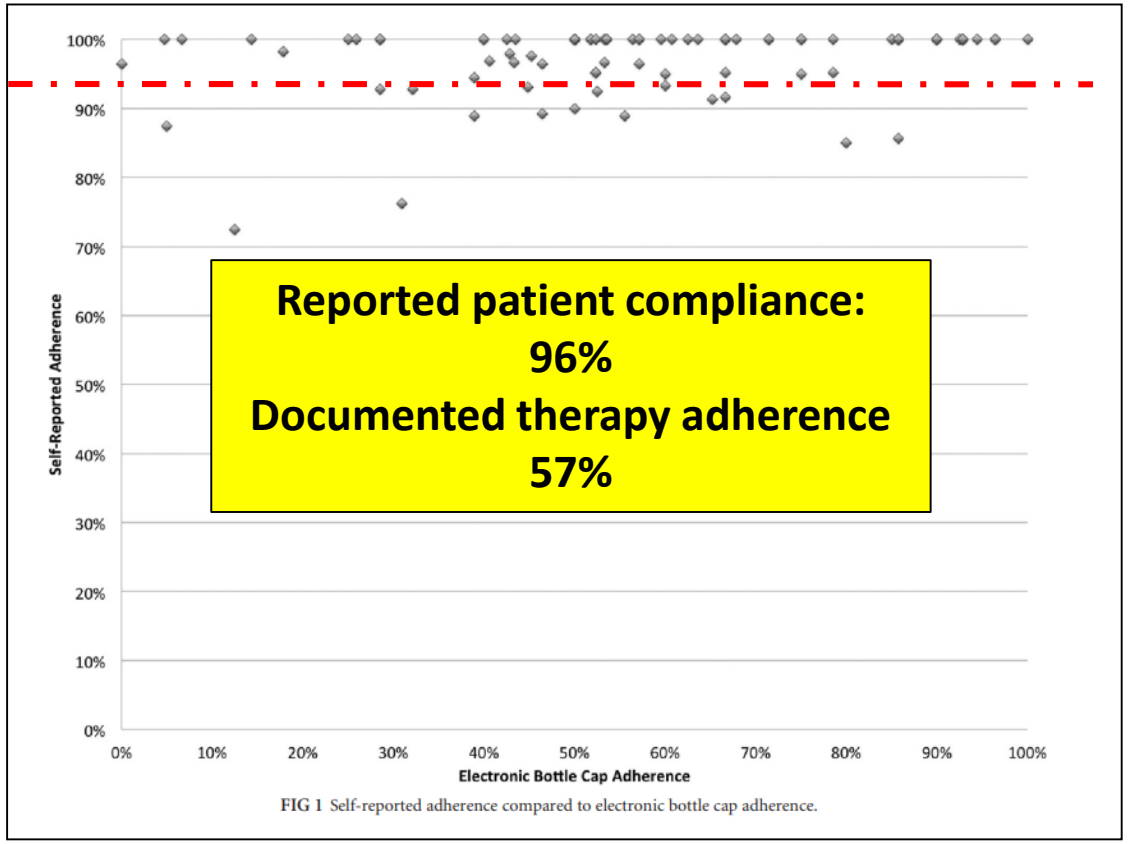


FIG 1 Self-reported adherence compared to electronic bottle cap adherence.

TABLE 3 Multivariate analysis of risk factors associated with poor clinical response after 30 days

Variable	Odds ratio (95% confidence interval)	*P* value
Overall electronically measured adherence	0.16 (0.02–0.99)	0.049
Diabetes	0.40 (0.15–1.0)	0.05
Illicit drug use	0.36 (0.13–0.99)	0.048

Eells SJ, Antimicrob Agents Chemother. 2016;60:2941-8

Single-Dose Antimicrobials

Advantages

- Patient adherence
- Potentially reduced resistance
- Potential cost reductions
  - ↓ hospitalizations
  - ↓ hospitalized complications
- No need for long-term venous catheters
- Reduce hospital related complications (during COVID-19)

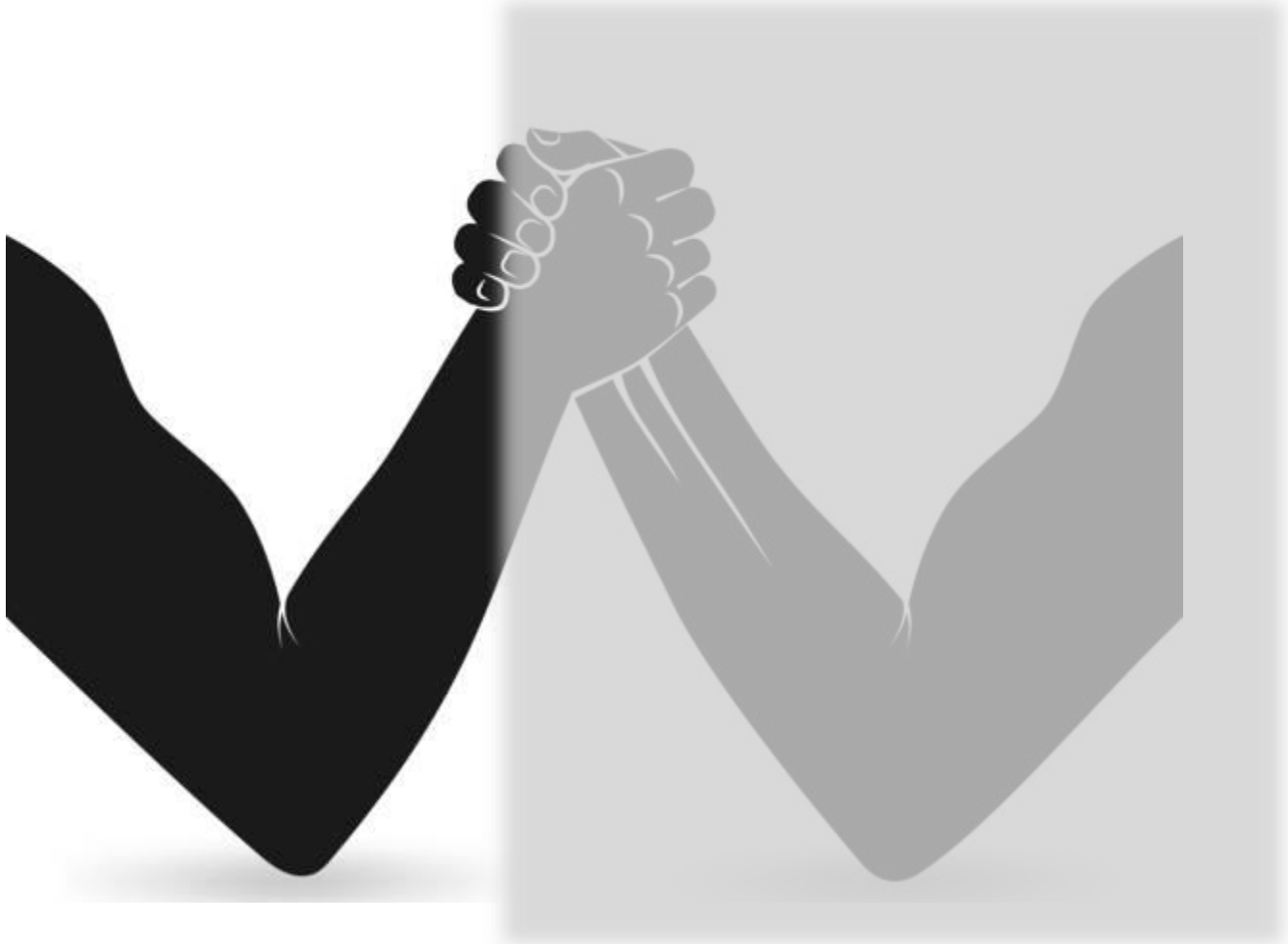
Llor C et al. Int J Infect Dis 2013;17(3):e168-72. Roberts KD et al. Pharmacotherapy 2015;35:935-48.
Crotty MP et al. J Clin Microbiol 2016;54:2225-32.

DALBAVANCIN versus ORITAVANCIN

- ❑ **Mechanism of action**
- ❑ ***In vitro* activity**
- ❑ **Pharmacokinetics**
- ❑ **Clinical use**

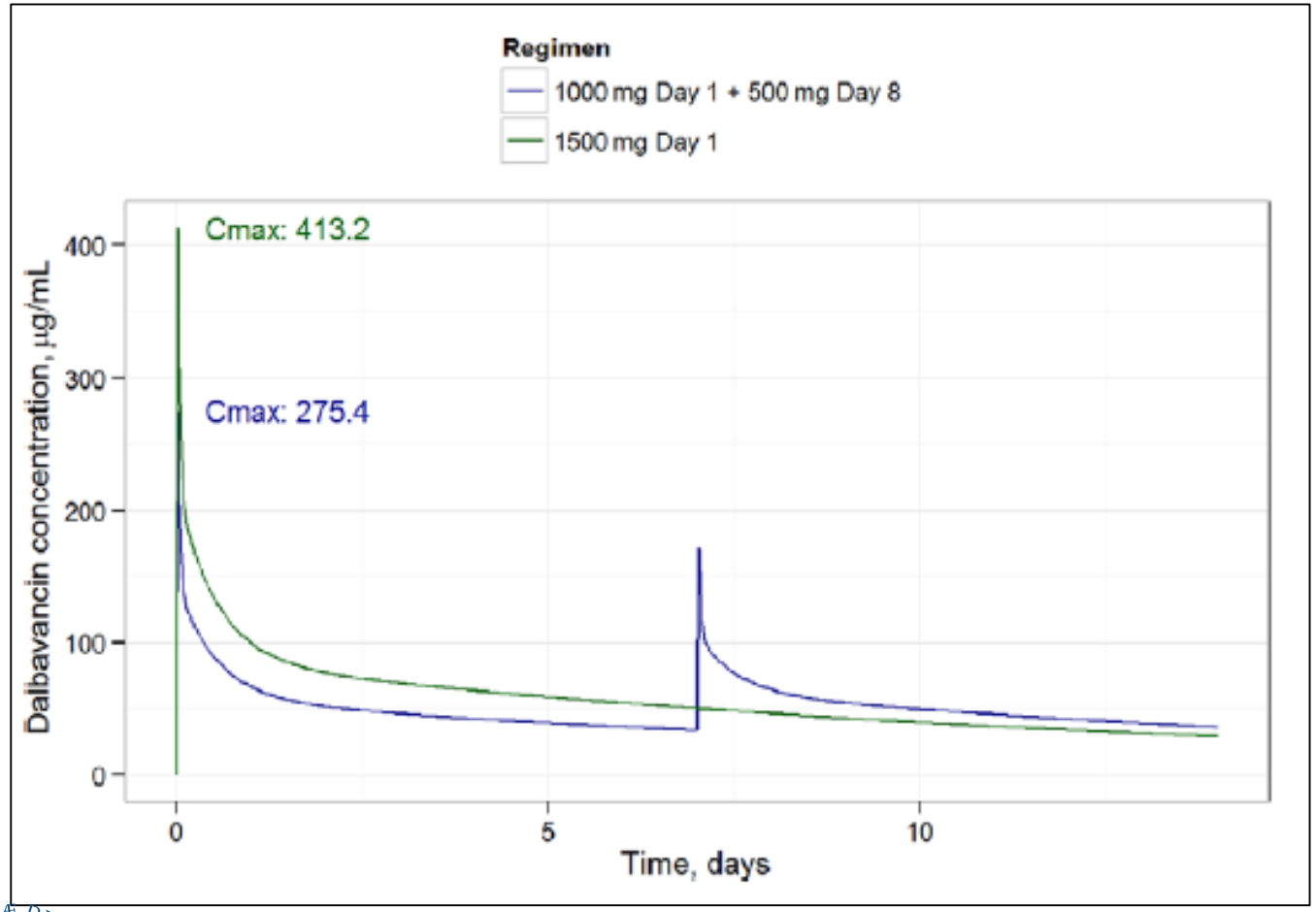
DALBAVANCIN versus ORITAVANCIN

- ❑ Mechanism of action
- ❑ *In vitro* activity
- ❑ Pharmacokinetics
- ❑ Clinical use



Dalbavancin: Weekly dose vs Single dose regimen

Simulation of the population mean PK profile by dose used in the DUR001-303 study



A single 1500-mg infusion of dalbavancin is noninferior to a 2-dose regimen in terms of PK profile

Carrothers TJ, Clin Pharmacol Drug Dev. 20

Dalbavancin

Activity against *Staphylococcal* biofilms

- Minimum biofilm inhibitory concentration (MBIC)
- Minimum biofilm bactericidal concentration (MBBC)

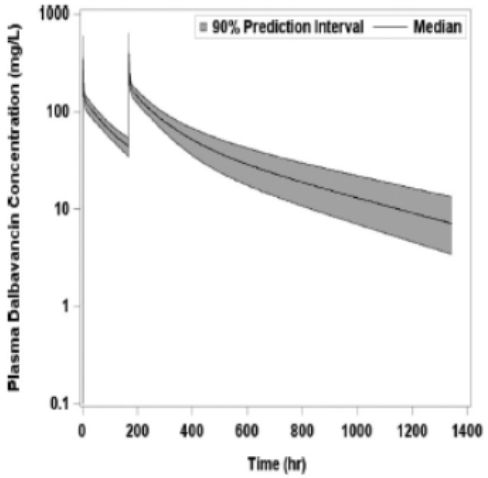
	Dalbavancin						Vancomycin	
	MIC_{50}	MIC_{90}	$MBIC_{50}$	$MBIC_{90}$	$MBBC_{50}$	$MBBC_{90}$	$MBBC_{50}$	$MBBC_{90}$
MRSA	0.03	0.06	0.06	0.25	1	2	>128	>128
MSSA	0.03	0.06	0.06	0.12	1	2	>128	>128
MRSE	0.03	0.12	0.06	0.50	1	4	>128	>128
MSSE	0.03	0.12	0.03	0.25	1	4	128	>128

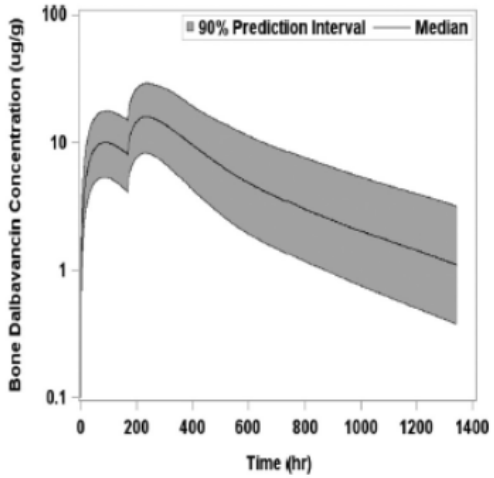
MRSE = Methicillin-resistant *S. epidermidis*
MSSE = Methicillin-sensitive *S. epidermidis*
MIC = Minimum inhibitory concentration

Fernandez J et al. Diagn Microbiol Infect Dis 2016;85:449-51.
Schmidt-Malan SM et al. Diagn Microbiol Infect Dis 2016;85:77-9.

Dalbavancin plasma & bone PK modeling: similar exposures through 8 weeks with 3000 mg cumulative dose

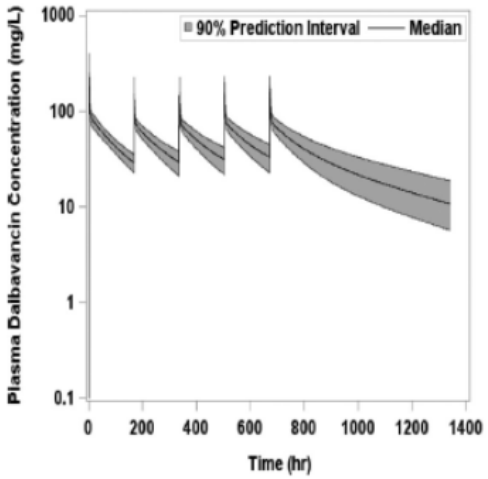
PLASMA
2 dose regimen
(1500 mg D1/D8)

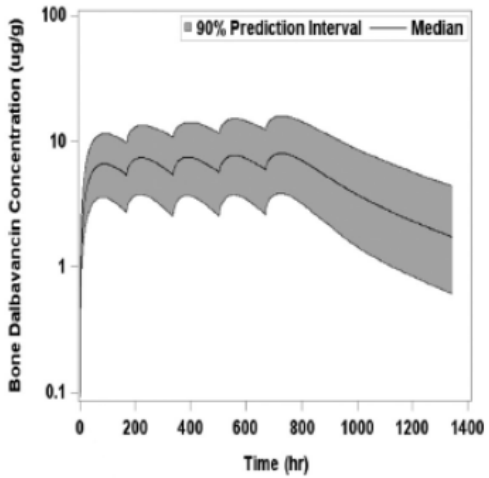




BONE LEVELS
2 dose regimen
(1500 mg D1/D8)

PLASMA
5 dose regimen
(1000 mg D1,
500 mg
D8/D15/D22/D29)



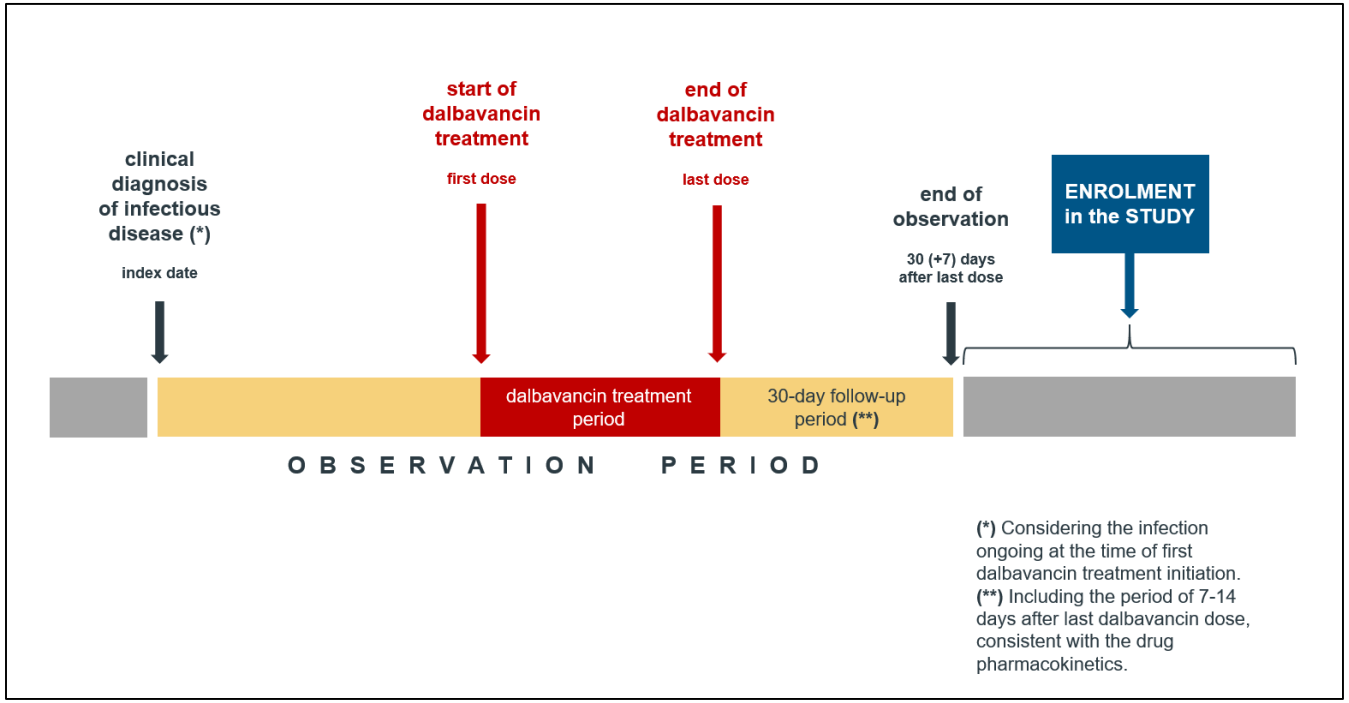


BONE LEVELS
5 dose regimen (1000
mg D1, 500 mg
D8/D15/D22/D29)

Dunne et al. Antimicrob Agents Chemother 2015; 59

Dalbavancin real-life utilization among diabetic patients suffering from infections in Italy and Spain: the DALBADIA retrospective cohort study

Multicenter, observational, retrospective cohort study, conducted in Italy and Spain including adults with type 1 or 2 diabetes mellitus, treated with dalbavancin as per standard clinical practice for a Gram-positive bacterial infection or the Gram-positive component of a mixed infection



Ruiz LM, J Glob Antimicrob Resist. 2024:S2213-7165(23)00219-9

Dalbavancin real-life utilization among diabetic patients suffering from infections in Italy and Spain: the DALBADIA retrospective cohort study

92 PATIENTS

Type of infections

Cellulitis	18 (19.6)
Prosthetic joint infection	14 (15.2)
Endocarditis	13 (14.1)
Primary bacteremia	10 (10.9)
Osteomyelitis	7 (7.6)
Spondylodiscitis	7 (7.6)
Diabetic foot infection	6 (6.5)
Cutaneous abscess	5 (5.4)
Wound infection	5 (5.4)
Catheter-associated infection	5 (5.4)
Erysipelas	1 (1.1)

Ruiz LM, J Glob Antimicrob Resist. 2024:S2213-7165(23)00219-9

Dalbavancin real-life utilization among diabetic patients suffering from infections in Italy and Spain: the DALBADIA retrospective cohort study

92 PATIENTS

78 /92 (84.8%) had Gram-positive infections only
14 (15.2%) had mixed infections

Isolated microorganisms

--- *Staphylococcus aureus* in 43 (55.8% of the patients with microbial isolation), 25.6% of which MRSA

--- *Staphylococcus epidermidis* in 13 (16.9%)

--- *Enterococcus faecalis* in 11 (14.3%).

Ruiz LM, J Glob Antimicrob Resist. 2024:S2213-7165(23)00219-9

Dalbavancin real-life utilization among diabetic patients suffering from infections in Italy and Spain: the DALBADIA retrospective cohort study

At the end of dalbavancin treatment, among 76 eligible patients with available clinical assessment

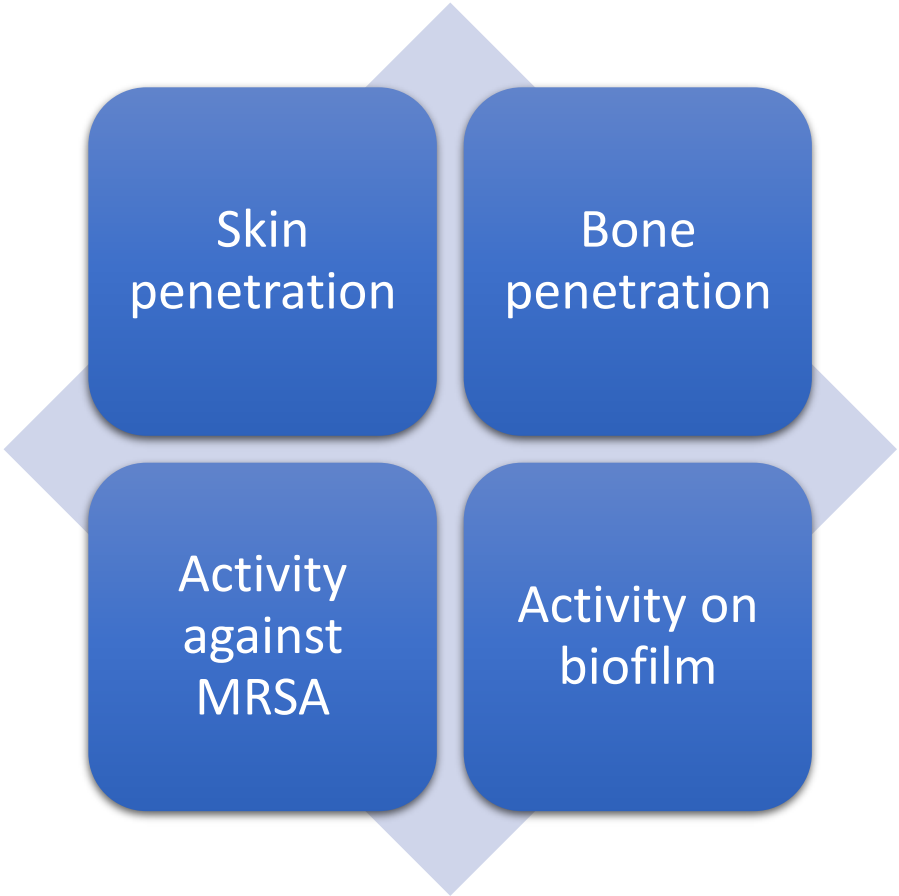
Clinical cure (n=32, 42.1%)	Clinical improvement (n=40, 52.6%)

Overall clinical responses in 72 patients, 94.7%

Ruiz LM, J Glob Antimicrob Resist. 2024:S2213-7165(23)00219-9

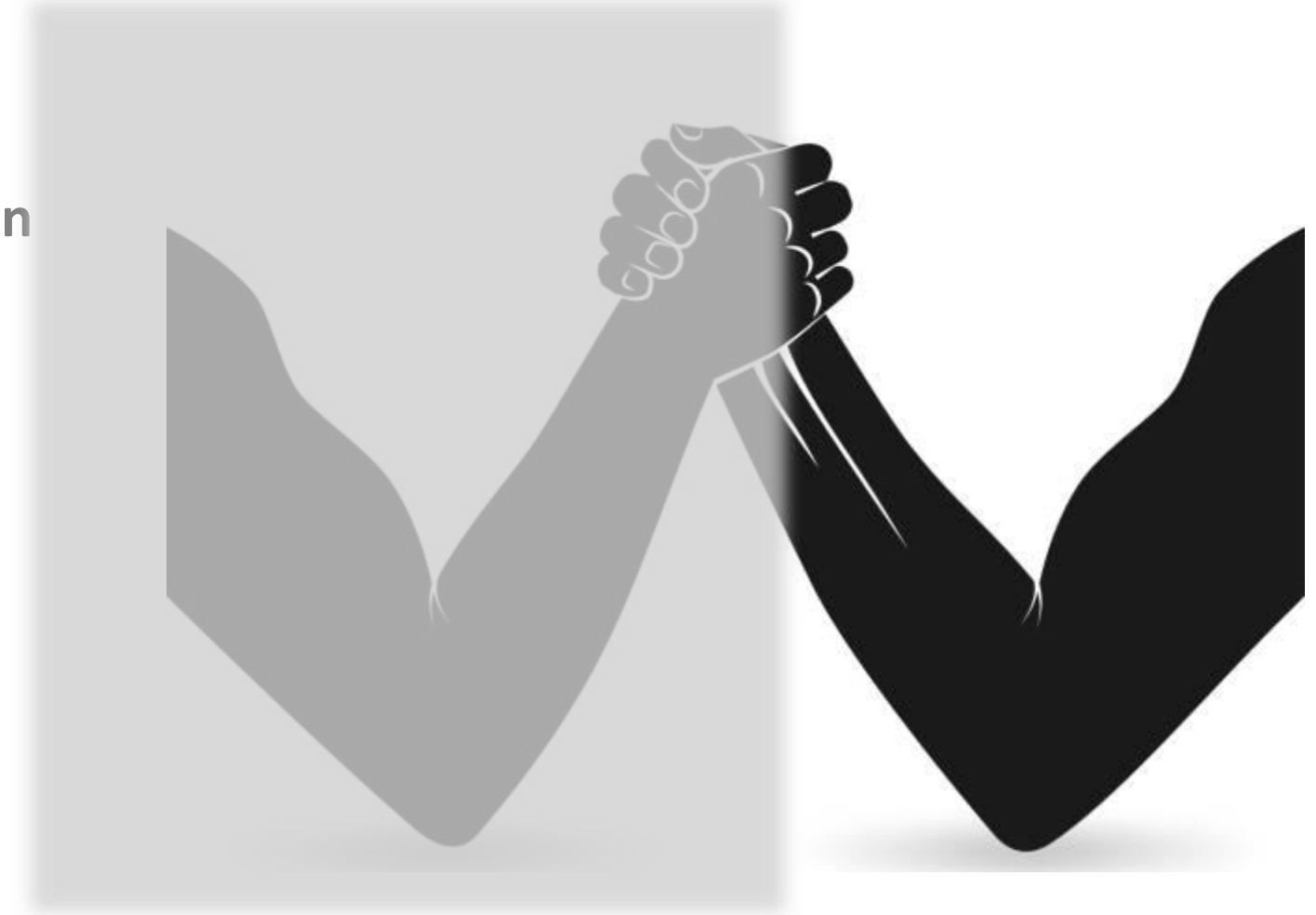
Dalbavancin

Properties

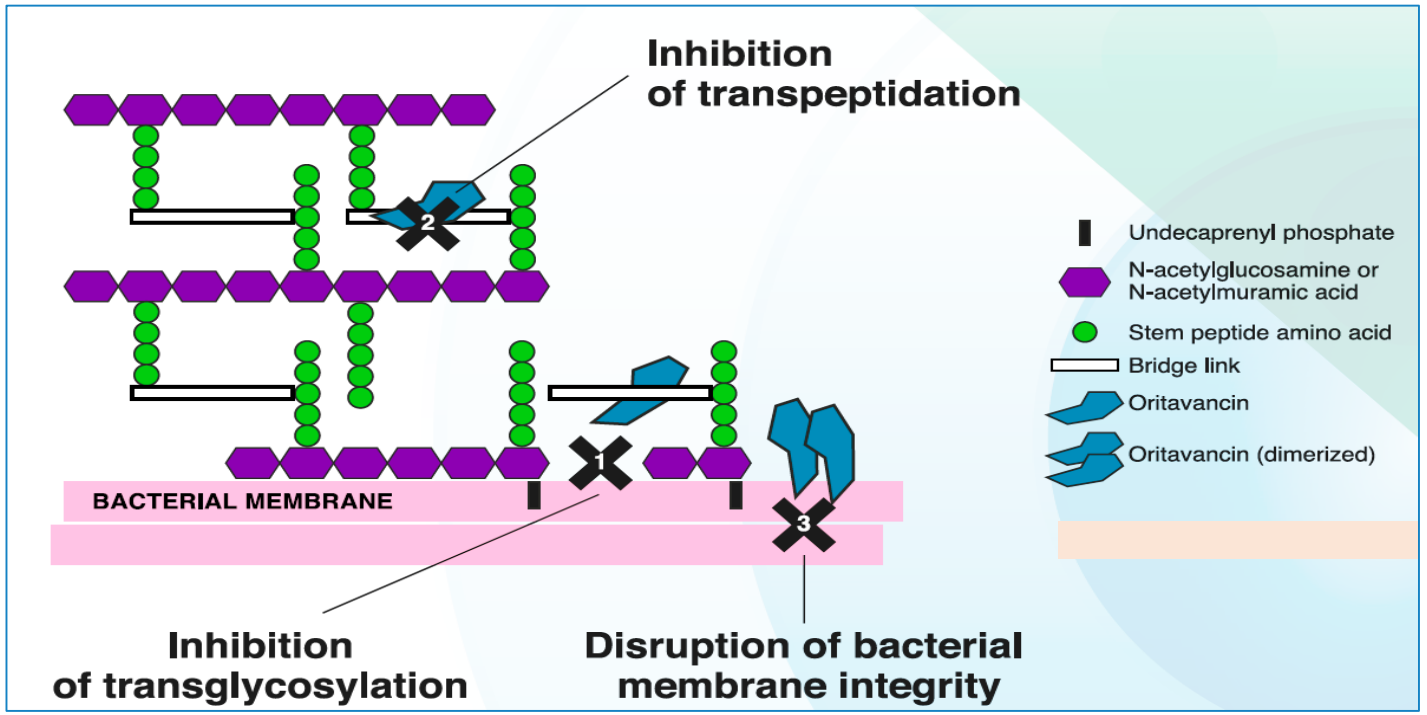


DALBAVANCIN versus ORITAVANCIN

- ❑ Mechanism of action
- ❑ *In vitro* activity
- ❑ Pharmacokinetics
- ❑ Clinical use



Multiple mechanisms of action



Elaborated from Fig. 2 in Ref. 2

Oritavancin has three mechanisms of action:[3]

1. **inhibition of the transglycosylation** (polymerization) step of cell wall biosynthesis by binding to the stem peptide of peptidoglycan precursors
2. **inhibition of the transpeptidation** (crosslinking) step of cell wall biosynthesis by binding to the peptide bridging segments of the cell wall
3. **disruption of bacterial membrane integrity**, leading to depolarization, permeabilization, and rapid cell death

Brade KD et al. Infect Dis Ther. 2016;5:1-15. ; 2. Koulenti D et al. Microorganisms. 2019 ;7(8).
3. Orbactiv. Summary of Product Characteristics.

Spectrum of activity

Oritavancin has rapid bactericidal activity against Gram-positive bacteria, including MSSA, MRSA, VRE and vancomycin-intermediate and vancomycin-resistant staphylococci[1]

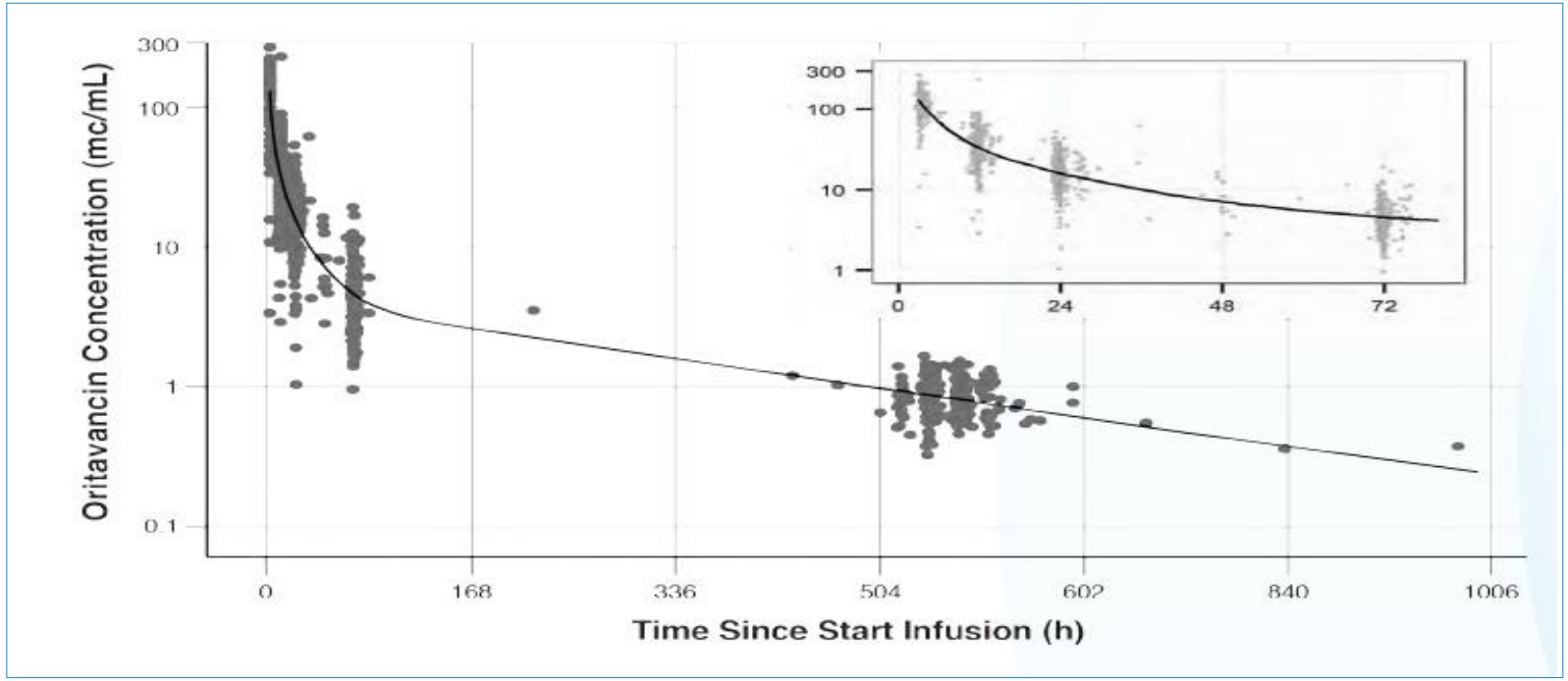
MIC_{50}, MIC_{90}, and MIC ranges of oritavancin against staphylococci, streptococci, and enterococci causing skin and skin structure infections from the US in 2010–2013

Organism	MIC range (mg/L)	MIC_{50} (mg/L)	MIC_{90} (mg/L)
MSSA	≥0.008-0.25	0.03	0.06
MRSA	≥0.008-0.25	0.03	0.06
S. pyogenes	≥0.008-0.5	0.03	0.12
S. agalactiae	≥0.008-0.25	0.03	0.12
VSE (*E. faecium*)	≥0.008	≥0.008	≥0.008
VRE (*E. faecium*)	≥0.008-0.12	0.015	0.06

Adapted from Table 1 in Ref. 2

Pharmacokinetic properties of oritavancin

Population mean concentration-time profile following a single oritavancin dose of 1,200 mg IV administered over 3 hours, overlaid upon the observed concentration-time data[2]



Semilog scale. The insets show the first 80 hours of the post-dose period. The solid lines through the data are the population mean predicted oritavancin concentration-time profiles[2]

- The mean (CV%) maximum oritavancin concentration (C_{max}) and $AUC0_{-\infty}$ in patients receiving a single 1,200 mg dose in ABSSSI patients is **138 (23) µg/ml** and **2,800 (28.6) µg x h/mL** respectively[3]
- The **mean terminal elimination plasma half-life of oritavancin is 245 hours** (14.9% CV) based on population PK analysis of ABSSSI patients receiving a single 1,200 mg dose[3]

Brade KD et al. Infect Dis Ther. 2016 Mar;5(1):1-15. ; Rubino CM et al. Antimicrob Agents Chemother. 2015;59(6):3365-72. Orbactiv. Summary of Product Characteristics. Messina JA et al. Expert Opin Pharmacother. 2015 May;16(7):1091-8.

Focus on Oritavancin: Differences versus Dalbavancin

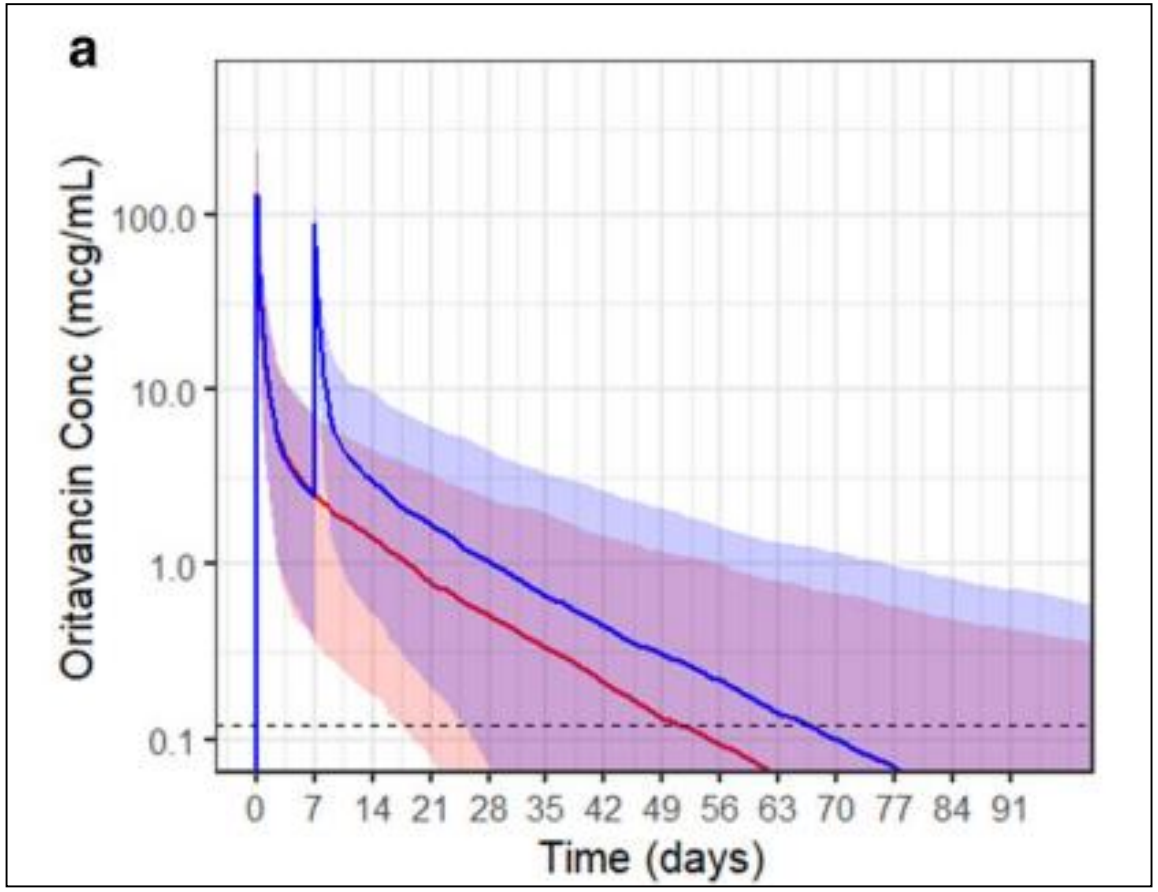
Reconstitution and Dilution

	DALBAVANCIN	ORITAVANCIN
DOGAGE each vial	500 mg	400 mg
DOSAGE (TOT)	1500 mg (3 vials)	1200mg (3 vials)
TIME OF INFUSION	30’	180’
RECONSTITUTION	Sterile water solution	Sterile water solution
DILUTION	Glucose solution 5%	Glucose solution 5%
TOT VOLUME	500 ml (according to the final concentration from 1 to 5 mg/ml) for vial	1000 ml

Focus on Oritavancin: Differences versus Dalbavancin
Special Populations

SPECIAL POPULATIONS	DALBAVANCIN	ORITAVANCIN
Renal impairment	**Dose adjustments not required for patients with mild or moderate renal impairment (creatinine clearance ≥ 30 to 79 ml/min).** In patients with chronic renal impairment whose creatinine clearance is **<30 ml/min** and **who are not receiving regularly scheduled haemodialysis, the recommended dose is reduced to either 1,000 mg administered as a single infusion or 750 mg followed one week later by 375 mg**	**No dosage adjustment** is needed in patients with mild or moderate renal impairment. **The pharmacokinetics of oritavancin in patients with severe renal impairment has not been evaluated.**
Hepatic impairment	**No dose adjustment** of dalbavancin is recommended for patients with mild hepatic impairment (Child-Pugh A). Caution should be exercised when prescribing dalbavancin to patients with moderate or severe hepatic impairment (Child-Pugh B & C) as no data are available to determine appropriate dosing (see sections 5.2).	**No dosage adjustment is required** for patients with mild to moderate hepatic impairment (Child-Pugh Class B) (see section 5.2). The pharmacokinetics of oritavancin in patients with severe hepatic impairment (Child-Pugh Class C) has not been evaluated, however based on pharmacokinetic parameters, severe hepatic impairment is not expected to have an impact on oritavancin exposure. Therefore no dose adjustment is required, even if caution should be exercised when prescribing oritavancin to patients with severe hepatic impariment (Child-Pugh Class C).
Elderly	No dose adjustment is necessary (see section 5.2).	*(≥ 65 years)* - No dosage adjustment is required for patients ≥ 65 years of age (see section 5.2).

A Two-Dose Oritavancin Regimen: 1200 mg Day1 + 800 mg Day7

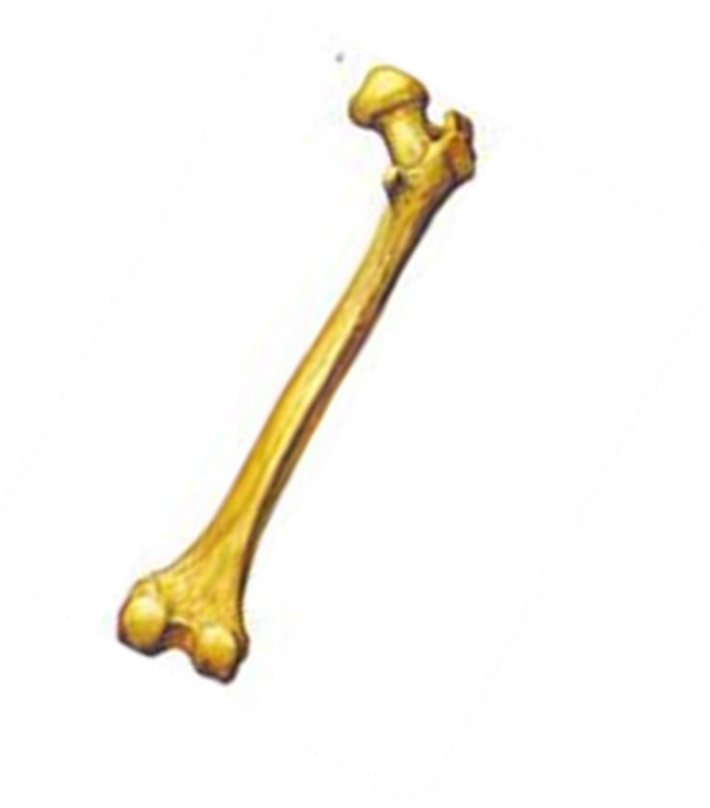


1200 mg followed by 800 mg 7 days later are associated with a total and free oritavancin concentrations remained above the susceptibility breakpoint (0.12 mg/L) for 8 weeks and 4.6 weeks, respectively, with the two-dose regimen.

Rose WE, Drugs Real World Outcomes. 2020;7:36-40

Long acting antibiotics: beyond ABSSSI

	Mean cancellous bone concentration, µg/mL	Mean cortical bone concentration, µg/mL
CEFEPIME	99.8	67.6
CIPROFLOXACIN	13.8	NA
LEVOFLOXACIN	10	4.6
LINEZOLID	6.4	
VANCOMYCIN	3.8	4.5
DAPTOMYCIN	21.4	
DALBAVANCIN	13.4	4.2
ORITAVANCIN	27*	65.6*



* Cmax, average not available

Thabit AK, Int J Infect Dis. 2019;81:128-136
Cojutti PG, Antimicrob Agents Chemother. 2021;65:e02260-20
Lehoux D, Antimicrob Agents Chemother. 2015;59:6501-5

Use of Oritavancin: real life experience

Reference	n	Infection	Organism	Doses	N of doses	Success
Johnson et al., 2015	1	Prostethic endocarditis	VRE	1200 mg every 48 h x 3 doses, then 1200 weekly x 6 weeks, then 1000 biweekly x 10 weaks	14	100%
Stewart et al., 2017	6	Bacteremia	MSSA, CoNS, *Enterococcus*	1200 mg	1	66.7%
Datta et al., 2018	3	Bacteremia	MRSA, S gallolyticus	1200 mg	1	100%
Redell et al., 2019	7	Bacteremia	MRSA, MSSA, S. epidermidis	1200 mg	1	100%
Brownell et al., 2020	4	Endocarditis	Not specified	1200 mg, then 800-1200 mg weekly	Not reported	100%
Schulz et al., 2018	1	Bacteremia	VRE	1,200 mg then 800 mg weekly	4	0

Reference	n	Infection	Organism	Doses	N of doses	Success
Van Hise et al., 2020	134	Acute osteomyelitis	MSSA, MRSA, VISA, VRE	1,200 mg once then 800 mg weekly	4-5 doses	88.1%
Redell et al., 2019	25	Acute osteomyelitis, septic arthritis, IAI	Not specified	1,200 mg once or 1,200 mg every 6–14 days	1-10 doses	76%
Chastain and Davis, 2019	9	Chronic osteomyelitis	MRSA, others	1,200 mg LD then 1,200 mg every 13–52 days	2–6 doses	100%
Schulz et al., 2018	4	Acute and chronic osteomyelitis, septic arthritis, diskitis	MSSA, others	1,200 mg then 800 mg weekly	2-8 doses	50%

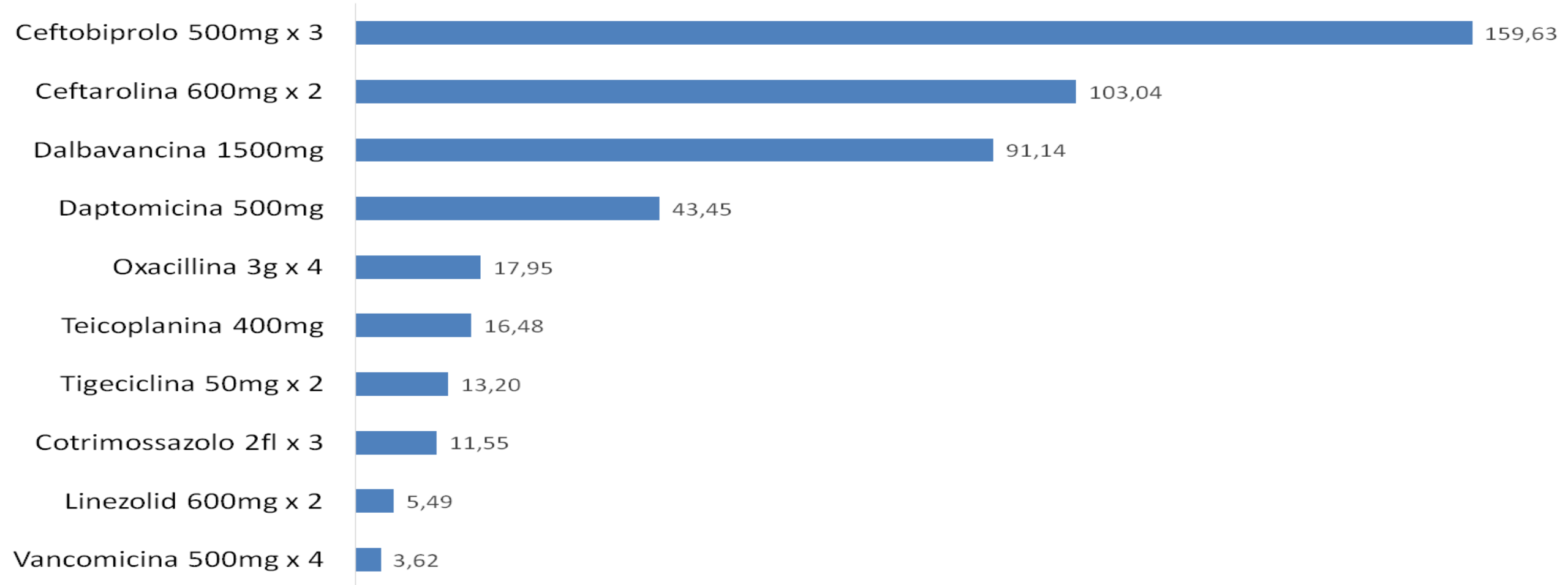
Tran TT. Antimicrob Agents Chemother. 2022;66:e0261420.

DALBAVANCIN *and* ORITAVANCIN

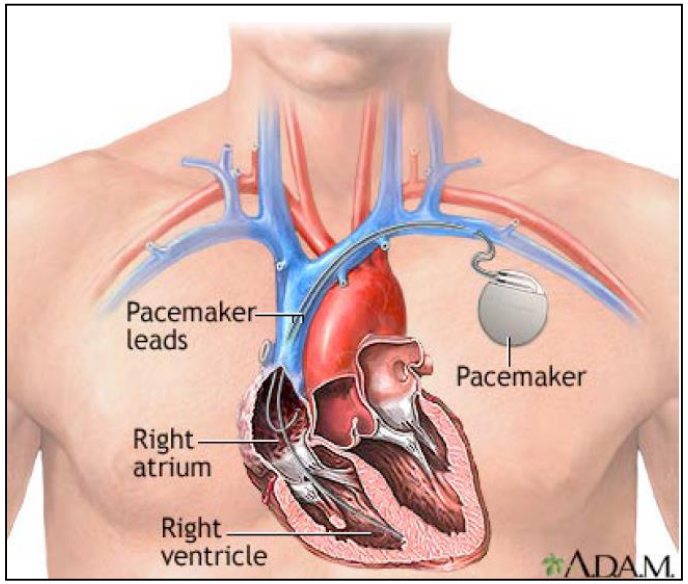
Patient's profile

Type of microrganism

Antibiotici EV vs Gram positivi
costo giornaliero (€)
AOUP, prezzi a gennaio 2020



Clinical case



M, 68 ys old (paroxetine)

Endoplastitis (Pocket + ICD)

MRSE + *Corynebacterium striatum*

Corynebacterium striatum

Benzilpenicillin	0.5 R
Clinda	>0.5 R
Daptomycin	>4 R
Linezolid	<0.25 S
Vancomycin	0.5 S
Oritavancin	0.03 S

DAY 1 – ICD REMOVAL

DAY 3 – NEW ICD IMPLANTATION

DAY 7 – DISCHARGE

START VANCOMYCIN

ORITAVANCIN 1200 mg