

402 (100.0)

% CLSI EUCAST

	Duyarlı ( $\mu\text{g/ml}$ )	Orta Duyarlı ( $\mu\text{g/ml}$ )	Dirençli ( $\mu\text{g/ml}$ )
CLSI	$\leq 2$	4	$\geq 8$
EUCAST	$\leq 0.06$	0.12-2 *	$> 2$

DENİZ GÜR

VOLKAN KORTEN



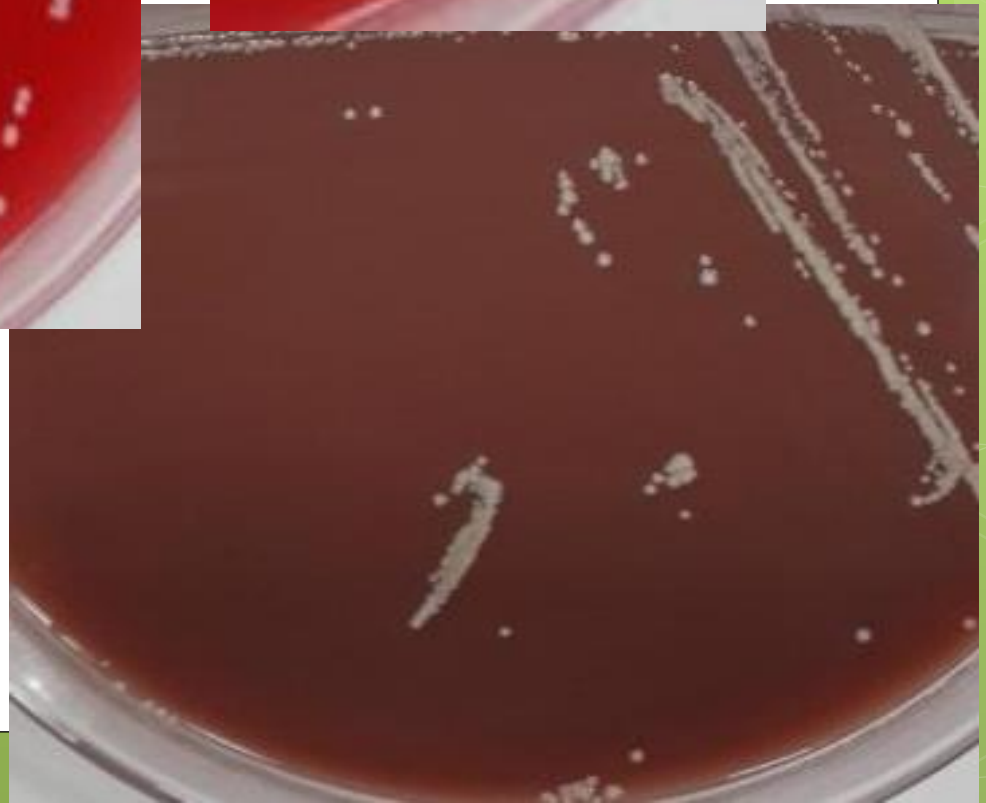
3. Ulusal  
Klinik Mikrobiyoloji Kongresi-2015



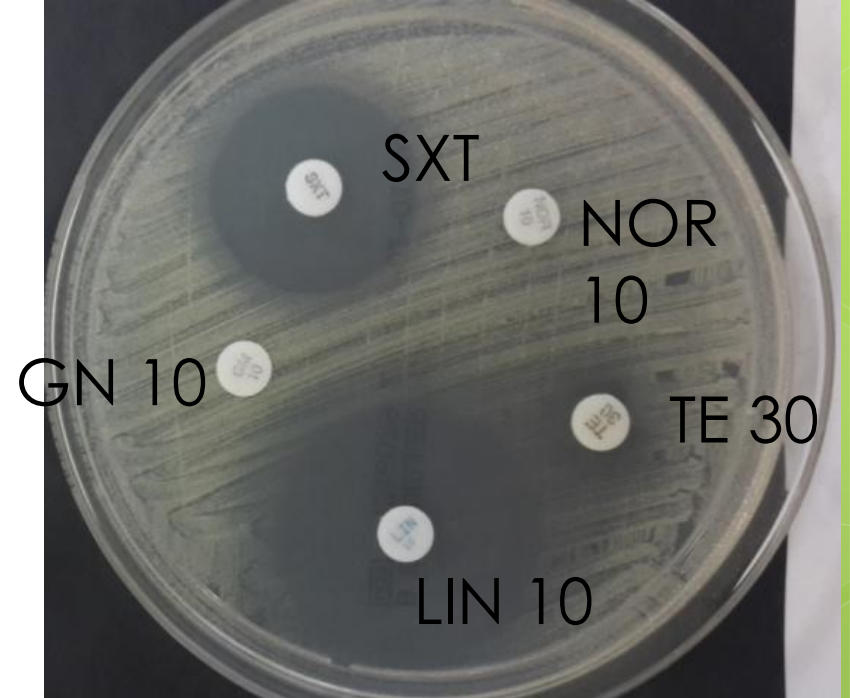
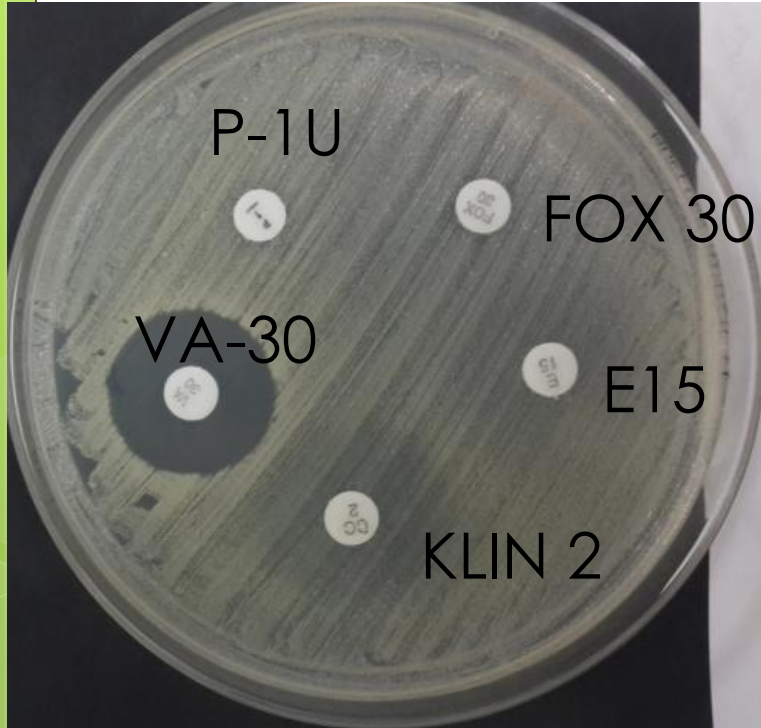
## OLGU-1

- 42 yaşında erkek hasta
- Tekrarlayan protez enfeksiyonu
- Debridman ve protezin çıkarılması
- Doku kültüründe ***Staphylococcus aureus***

# Koloni Morfologjisi



Yanlış bir uygulama var mı?



**Metisilin Direnci ?**

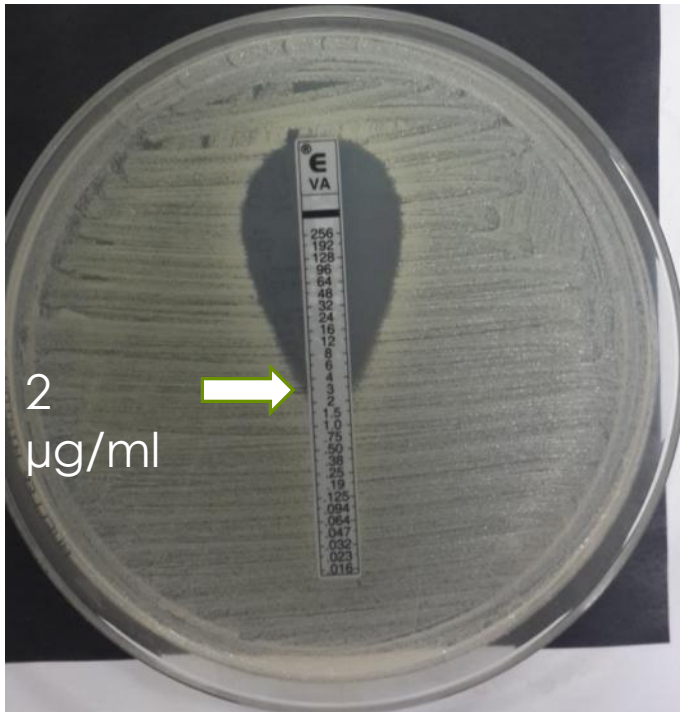
**MRSA**

**Evet. Vankomisin MİK bakılmalı !!!!**

**Sınır değeri 2 mg/L**

# Vankomisin için Antibiyotik Gradyent testi (G testi)

- Sonucu nasıl verelim?



V 5.0 EUCAST Sınır değerleri

Vankomisin ve teikoplanin  
**MİK**

*S. aureus*

$S \leq 2$  -  $>2$  R

KNS

$S \leq 4$  -  $>4$  R



**GRSA ?**

**GISA ?**

**hGISA ?**

- **GRSA**

Vankomisine yüksek dirençli *S.aureus* izolatları (MİK >8 mg/L)

- **GISA**

Vankomisine düşük düzeyde dirençli *S.aureus* izolatları (MİK 4-8 mg/L)

- **hGISA**

Vankomisine duyarlı *S.aureus* izolatları (MİK ≤2mg/L)  
ANCAK 1/10<sup>6</sup> hücre MİK >2mg/L (PAP analizi)



## MİK yükseldikçe hVISA da artıyor

Vanko MİK ( $\mu\text{g/ml}$ ) E Test ile	hVISA %
0.5	0
0.75	6.8
1	12.8
1.5	28.6
2	100

Sancak B et al BMC Infectious Diseases 2013;  
13: 583

RESEARCH ARTICLE

Open Access

# Vancomycin and daptomycin minimum inhibitory concentration distribution and occurrence of heteroresistance among methicillin-resistant *Staphylococcus aureus* blood isolates in Turkey

Banu Sancak<sup>1\*</sup>, Server Yagci<sup>2</sup>, Deniz Gür<sup>1</sup>, Zeynep Gülay<sup>3</sup>, Dilara Ogunc<sup>4</sup>, Güner Söyletir<sup>5</sup>, Ata Nevzat Yalcin<sup>6</sup>, Devrim Öztürk Dünder<sup>7</sup>, Ayşe Willke Topçu<sup>8</sup>, Filiz Aksit<sup>9</sup>, Gaye Usluer<sup>10</sup>, Cüneyt Özakin<sup>11</sup>, Halis Akalin<sup>12</sup>, Mutlu Hayran<sup>13</sup> and Volkan Korten<sup>14</sup>

PAP-AUC yöntemiyle kan izolatlarının **%13.7**'si  
**h VISA** (24/175)

# hVISA'yı nasıl saptarız?

DD ve otomatize sistemler yetersiz

- **hVISA tarama**
  - Makro G test
  - Etest-GRD "Glikopeptid Resistans Detection"
  - Teikoplanin agar Tarama
- **Doğrulama**
- **PAP -AUC**



# hVISA saptanması

## Makro-G test

İnokulum : 2.0 McFarland

100  $\mu$ l  $\rightarrow$  90mm BHI agar plağı

24/48 s. inkübasyon

Vankomisin  $\geq 8$  + Teikoplanin  $\geq 8$

Teikoplanin  $\geq 12$

	Duyarlılık	Özgüllük	
Sancak B ve ark (2011)	%58.3	%92.1	24s
Leonard SN,et al (2009)	% 83	% 94	48s

# hVISA saptanması

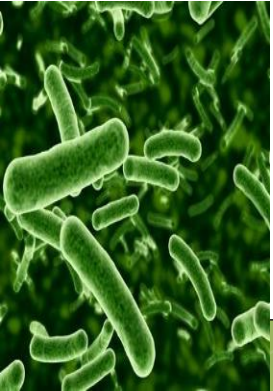
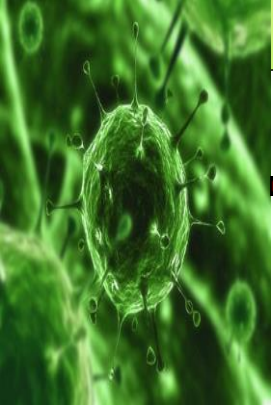
## E test GRD

İnokulum : 0,5 McFarland (MHB' de)

%5 KK Mueller Hinton

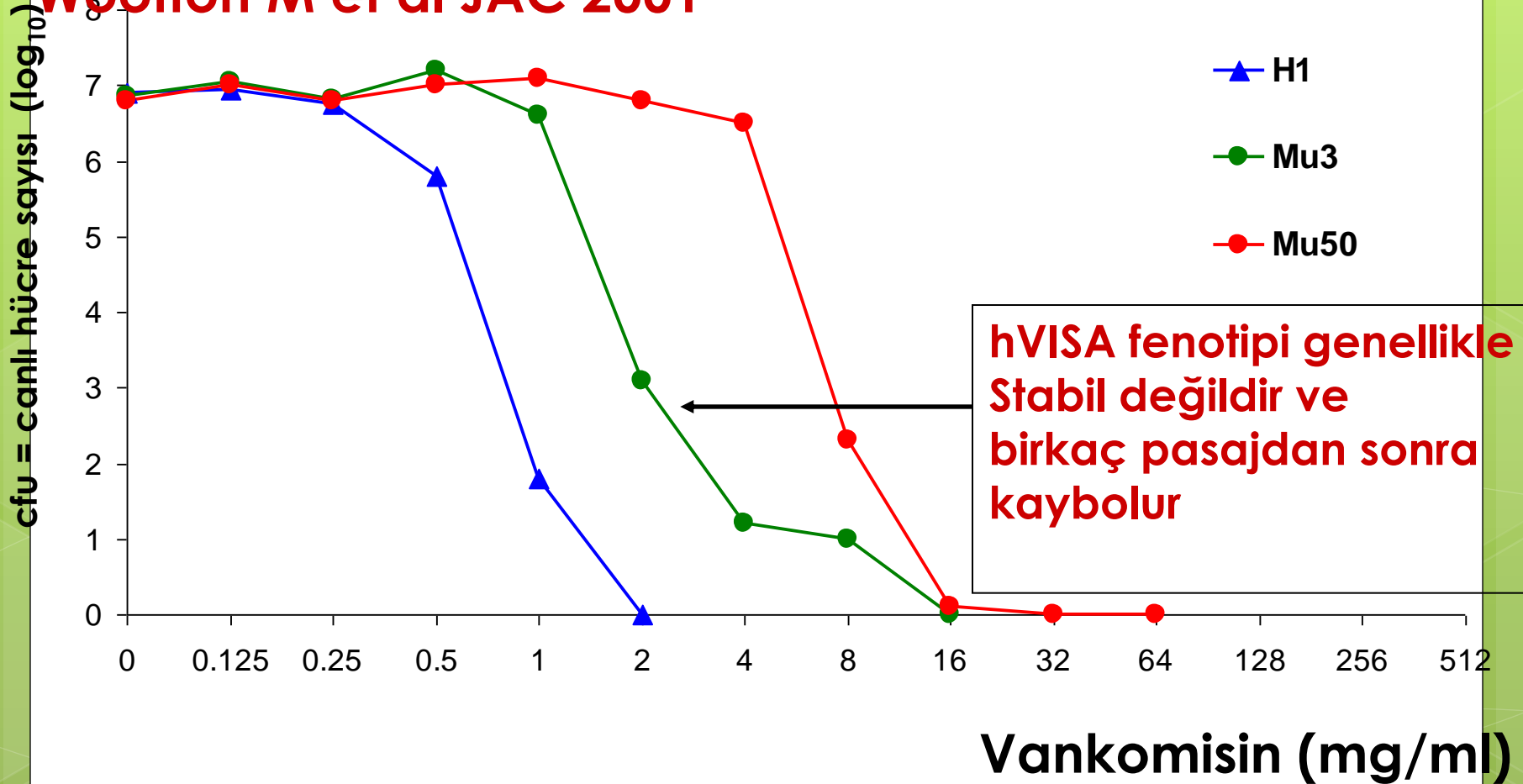
Kalite kontrol:

*S. aureus* ATCC 29213 (MSSA),  
ATCC 700699 (GISA) Mu50  
ATCC 700698 (hGISA) Mu3



# “Population Analysis Profile” (PAP)-modifiye yöntem

Wootton M et al JAC 2001



VISA Mu50, Mu3 (hetero-VRSA) ve H1 (VSSA)

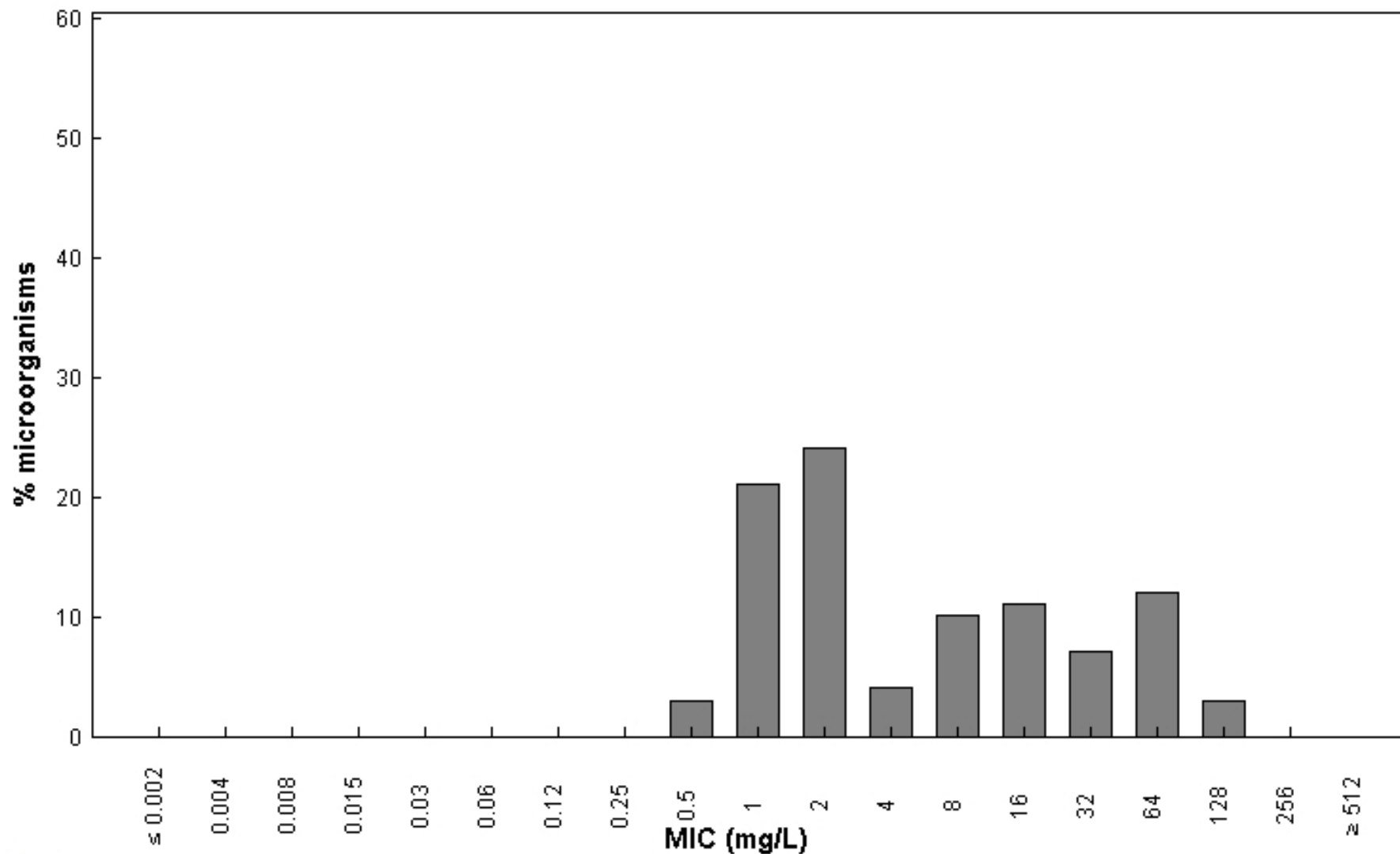
# Acinetobacter

- Tüm-dirençli
- Sulbaktam kombinasyonları?
- Sulbaktam için sınır değeri?

# Sulbactam / *Acinetobacter baumannii*

## International MIC Distribution - Reference Database 2015-11-18

MIC distributions include collated data from multiple sources, geographical areas and time periods and can never be used to infer rates of resistance



MIC  
Epidemiological cut-off (ECOFF): -  
Wildtype (WT) organisms:

205 observations (2 data sources)



