



KEMENTERIAN  
KESEHATAN  
REPUBLIK  
INDONESIA

# ANTIBIOTIC PROGRAM PENATAGUNAAN ANTIBIOTIK

**Harry Parathon**

**KOMITE PENGENDALIAN RESISTENSI ANTIMIKROBA  
RSUD. DR. SOETOMO SURABAYA / KEMENKES RI**



# Topik Bahasan

- Masalah di rumah sakit di Indonesia
- Penatagunaan antibiotik / ASP
- Kedudukan dan cara kerja PGA
- Hasil Pilot project PGA di RSUD.Dr. Soetomo
- ASP di SGH - Singapore

# Aktivitas PGA / ASP di rumah sakit



Dr. Djovi.  
RS. Super husada

*R/ Meropenem  
1 g no XV  
/ imm.*

Ny. Rindu



Ms. Rindu. 46 thn  
BP110/70, TEMP:  
38.5, Leucosit:  
14.000.  
X-Ray Thorax:  
Pneumonia (+)  
Diagnose: CAP



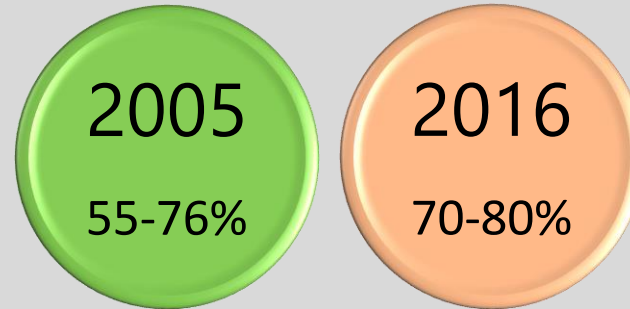
Tim PGA

Diskusi:  
Meropenem →  
Levofloxacin 750  
mg/dosis tunggal

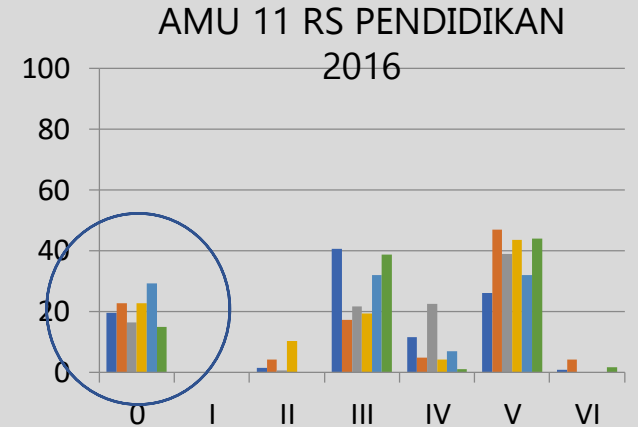
# SURVEILANS AMR DAN AMU 11 RUMAH SAKIT

## PENDIDIKAN

**SURVEILLANS  
PENGUNAAN  
ANTIBIOTIK**

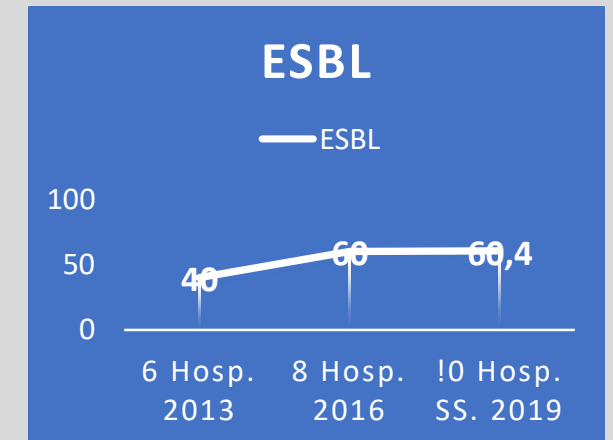
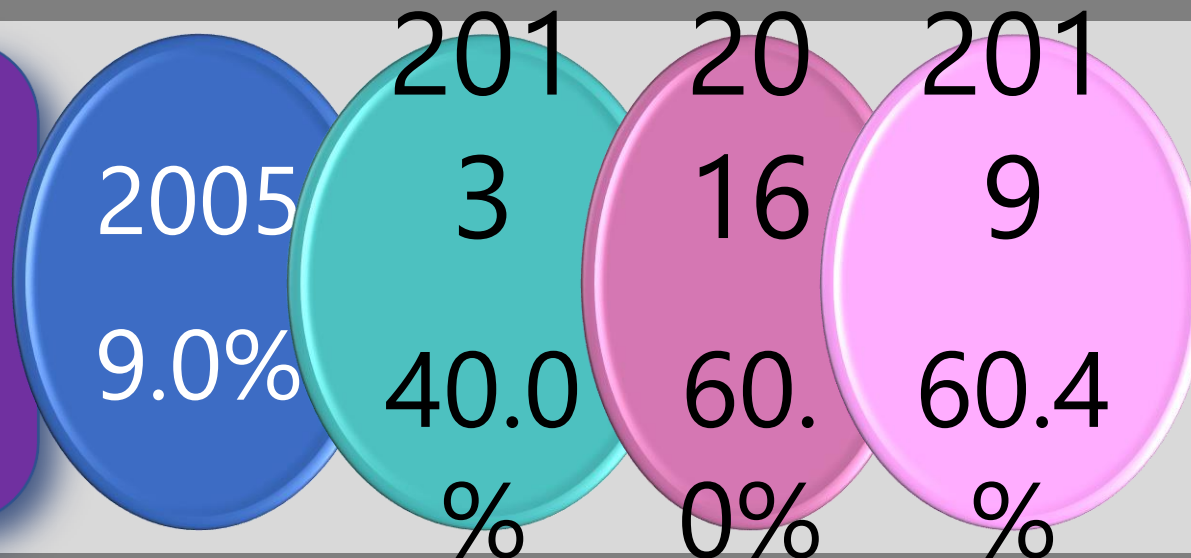


**MISUSE &  
OVERUSE**

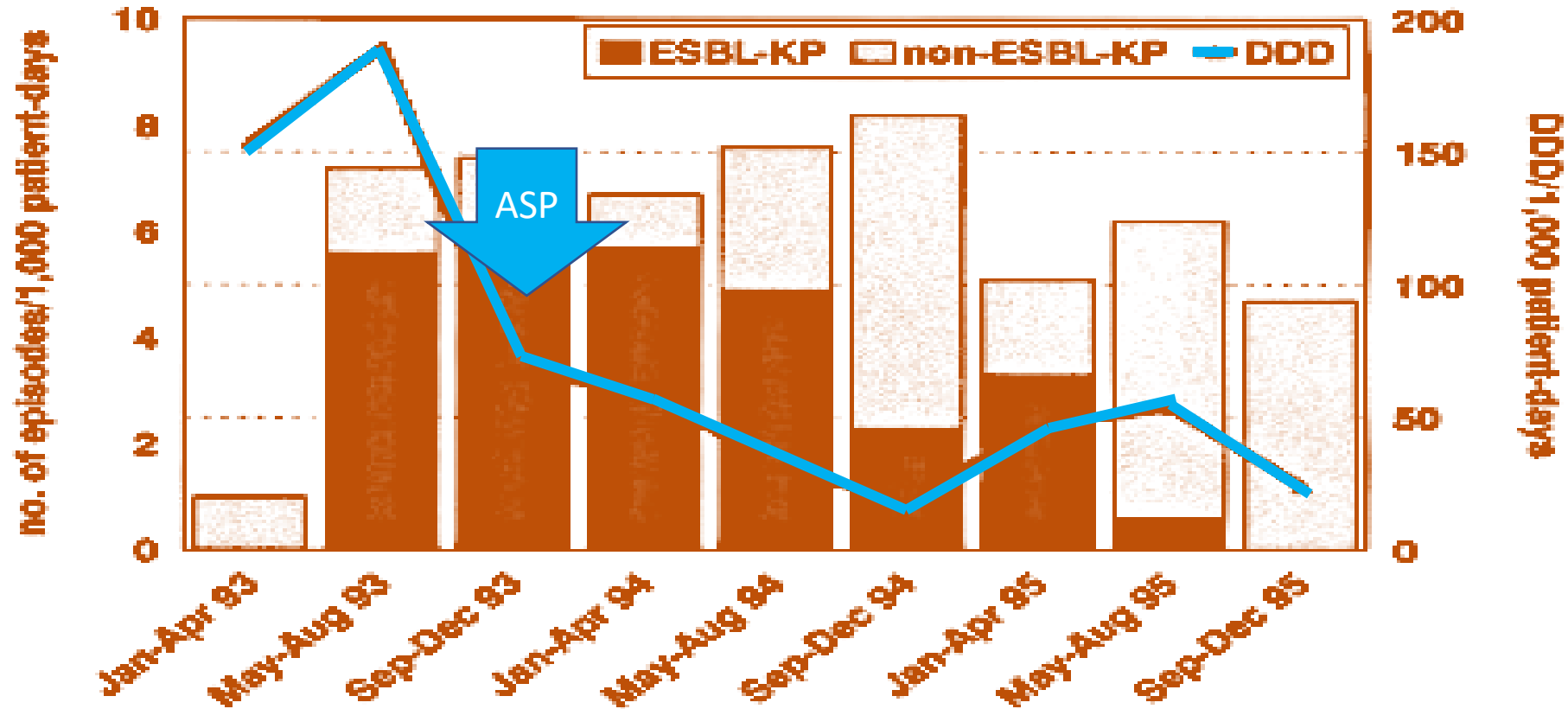


## SURVEILLANS

- E.COLI (ESBL)
- K. PNEUMONIA (ESBL)



# PENGARUH ASP MENURUNKAN PREVALENSI ESBL



Pena et al, 1998. Epidemiology and Successful Control of a Large Outbreak Due to *Klebsiella pneumoniae* Producing Extended Spectrum  $\beta$ -Lactamases  
ANTIMICROBIAL AGENTS AND CHEMOTHERAPY, Jan. 1998

# PENATAGUNAAN ANTIBIOTIK / ASP

## INTERVENSI

- Indikasi tepat
- Penggunaan antibiotik **TEPAT** → Jenis, dosis, rute, interval dan durasi.

Tujuan  
meningkatkan

- **Guideline: PPK dan CP**
- Kelompok antibiotik: **Access, Watch** dan **Reserve**
- Prosedur pengesahan AB
- Monitoring and feedback
- Dukungan Manajemen





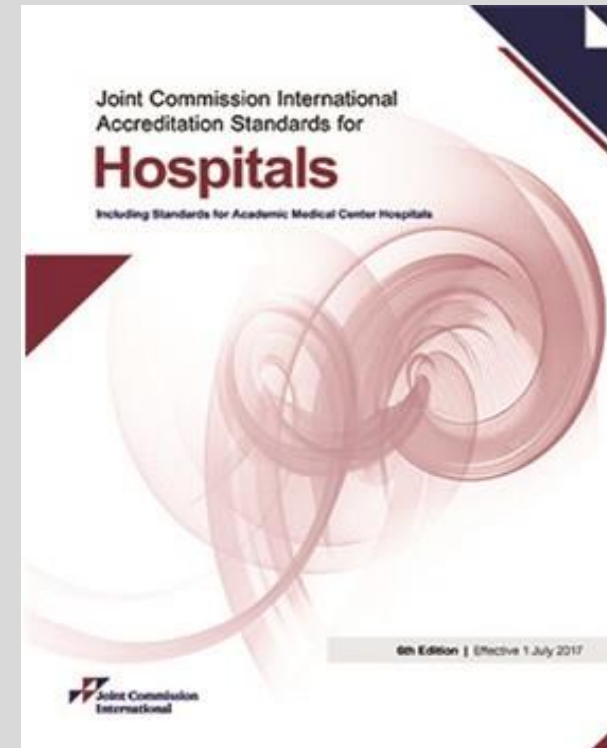
PGA



Pasien  
mendapat  
antibiotik  
yang  
**TEPAT**



# DASAR REFERENSI PENATAGUNAAN AN







# **TIM PGA** **berada dalam** **KPRA / TIM PPRA RS**

- Farmasi klinik
- Mikrobiologi klinik
- Pengendalian dan Pencegahan infeksi
- Klinisi dokter (Minat Infeksi)
- Staf RS lainnya
- **Dikukuhkan → SK Direktur RS**

# PGA: Pembedahan → Prophylaxis



Dr. VITA SpOG  
RS. Super husada  
**R/ ceftriaxone 1 g  
No. II**  
/ imm.  
  
Ny. Susan



Cefazolin 2 gram



No

Ny. S, 28 th  
G1P0. ATH. CPD  
BP110/70, TEMP:  
36.5, T3/T4 DBN;  
Leucosit: 7.000.

# PGA: Pembedahan → Prophylaxis



Dr. Djovi. SpB KL  
RS. Super husada

R/ ceftriaxone 1 g  
No. II  
/ imm.

Tn. ABD



No Antibiotic

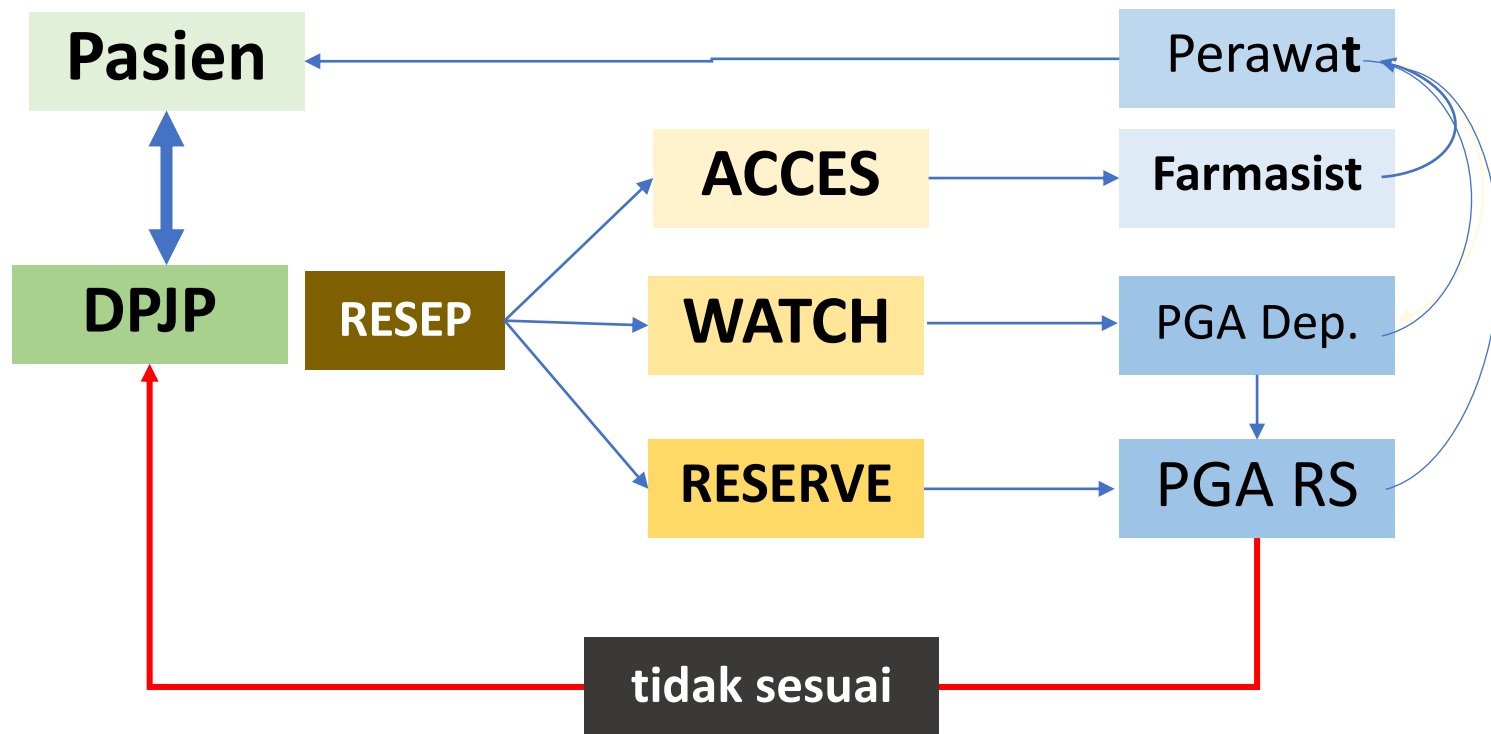


Ny. N. 40 yrs  
Benjolan pada leher;  
BP110/70, TEMP:  
36.5, T3/T4 DBN;  
Leucosit: 7.000.  
Diagnose: Struma

- Pasien pulang
- obat analgetik
- Antibiotik oral (-)



# Persetujuan peresepan antibiotik

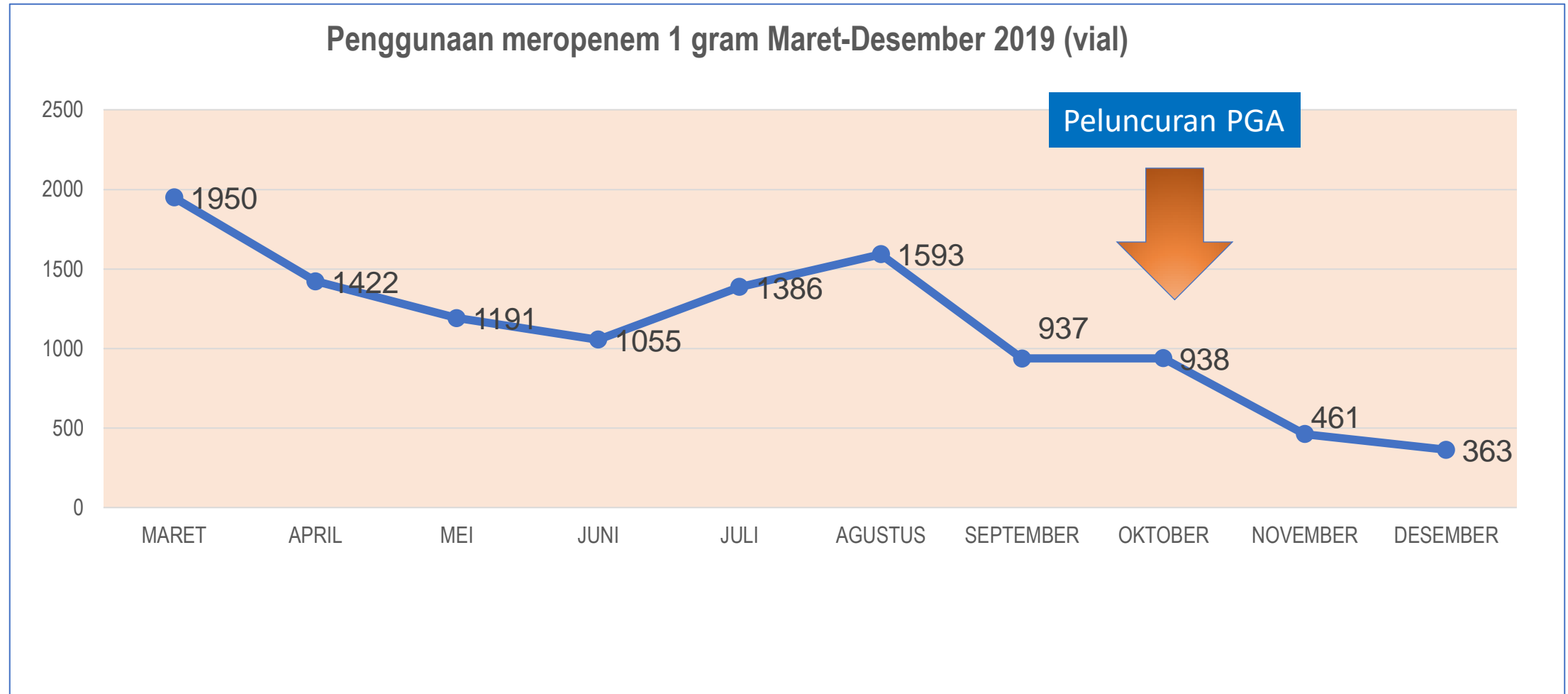


# KEBIJAKAN RESTRIKSI ANTIBIOTIK - AWaRe

DI RSUD DR SOETOMO (SK Direktur No: 188.4 / 237 / 301 /

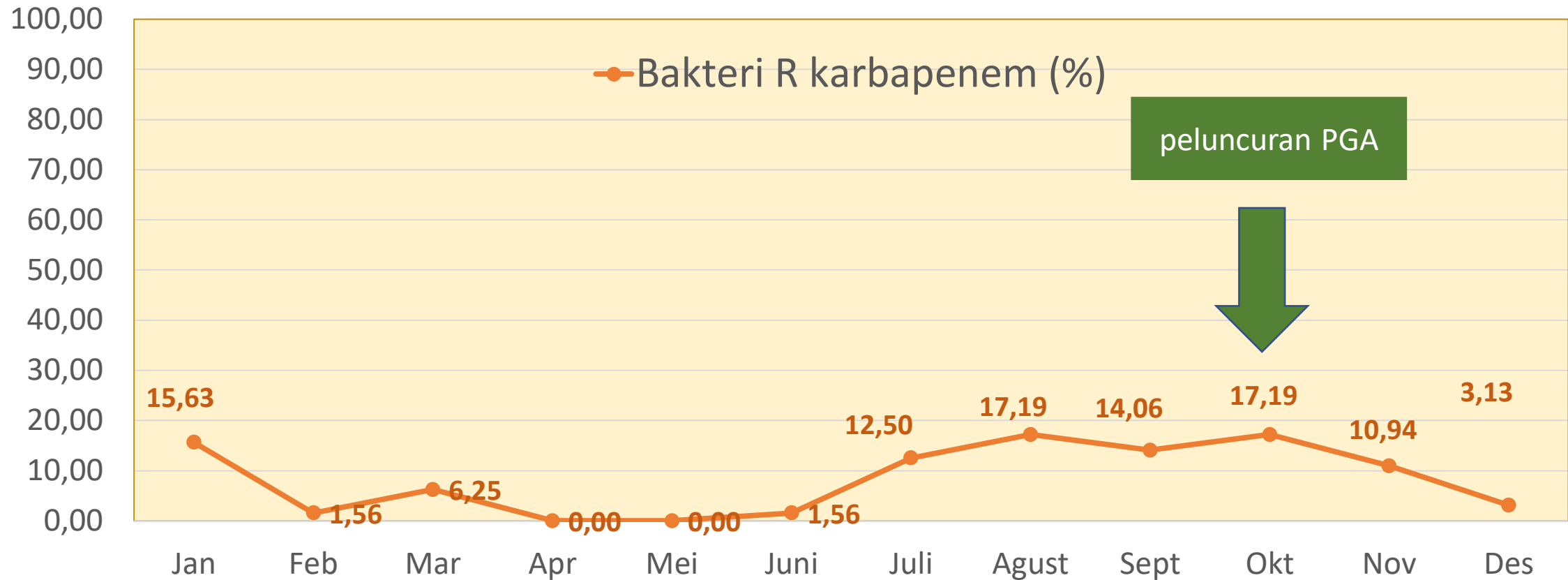
ACCESS	WATCH	RESERVED
<ul style="list-style-type: none"><li>• Ampicillin, Amoxicillin</li><li>• Gentamycin</li><li>• Ampicillin-sulbactam, Amoxicillin-clavunalat acid</li><li>• Cephradin, Cephalexin, Cefadroxil, Cefazolin</li><li>• Cephaclor, Cefuroxime</li><li>• Chloramphenicol, Thiamphenicol</li><li>• Clindamycin oral</li><li>• Erythromycin, Spiramycin, Clarithromycin</li><li>• Ciprofloxacin</li><li>• Tetracyclin, Doxycyclin</li><li>• Cotrimoxazole oral</li><li>• Metronidazole</li></ul>	<ul style="list-style-type: none"><li>• Azithromycin</li><li>• Cefixime, Cefditoren, Cefpodoxim-proxetil</li><li>• Ceftriaxone, Cefotaxime, Ceftazidime, Cefoperazon, Cefoperazon-sulbactam, Ceftizoxime</li><li>• Cefepime, Cefpirome</li><li>• Levofloxacin, Ofloxacin, Moxifloxacin,</li><li>• Aztreonam</li><li>• Amikacin, Fosfomycin</li><li>• Nitrofurantoin, Colistin p.o</li></ul>	<ul style="list-style-type: none"><li>• Meropenem, Ertapenem, Doripenem, Imipenem-cilastatin</li><li>• Vancomycin</li><li>• Piperacillin-tazobactam</li><li>• Tygecycline</li><li>• Linezolid</li><li>• Polimixin B inj. (SAS)</li><li>• Colistin inj. (SAS)</li><li>• Cotrimoxazole inj (SAS)</li></ul>

# DAMPAK PENGGUNAAN ANTIBIOTIK RESERVE (MEROPENEM) SEBELUM DAN SESUDAH PELUNCURAN PGA di RSDS 2019

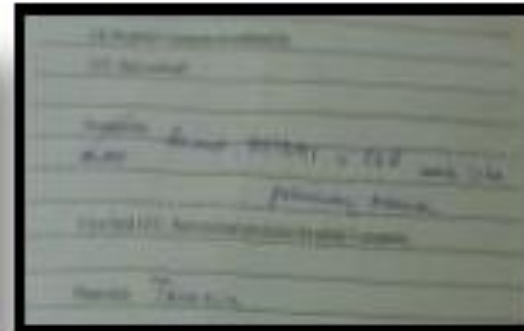


\*Sumber data: pengeluaran unit pelayanan farmasi

# Prevalensi E.coli (CRE) 2019 (N= 281)



# Apa Yang Dikerjakan Tim ASP - Singapore



**Antibiotic  
prescribed**

**ASP  
Pharmacist  
review**

**Case review  
by ID  
Physician**

**Feedback to  
Prescriber**

**Intervention  
follow-up**

## Types of interventions

- Discontinuation, de-escalation, dosing optimization, IV-to-PO
- Escalation
- Further investigations, ID referral, infection control measures



# CONTOH FEED BACK TIM ASP

Dear, Dr, Prof

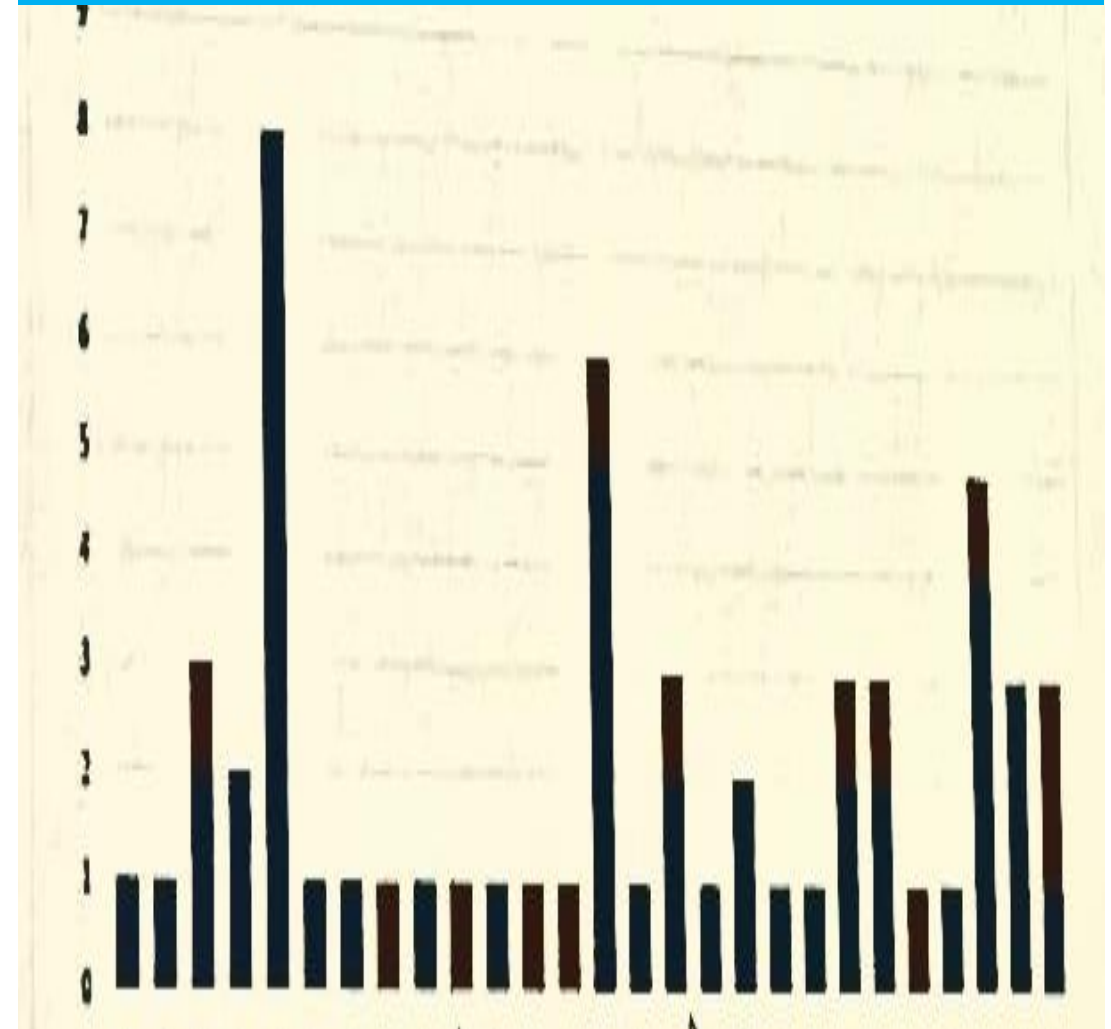
His most recent admission was > 3months ago and hence his pneumonia is CAP

If You suspect more resistant organism because of recent therapy, you may use IV **Ceftazidime** plus PO **Levofloxacin** or even **Piptazo** but not **Meropenem**.

Please de-escalate antibiotics

*ID Specialist*

# EVALUASI PERESEPAN SETIAP DOKTER



# TAKE HOME

1. **HAK PASIEN** mendapatkan pengobatan yang tepat dan optimal, termasuk antibiotik → Meningkatkan outcome pasien
2. Penggunaan antibiotik masih berpotensi Misuse dan Overuse
3. Tim PGA/ASP rumah sakit, membantu optimalisasi penggunaan antibiotik
4. Indikator:
  - penurunan prevalensi Misuse dan Overuse

RKP,





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INDONESIA**

**TERIMA KASIH**