

Antimicrobial Resistance in Suriname

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Situation in Surinam

- No Electronic Patient Files are present: documentation of dose (route), duration (start/end date), indication for every antibiotic treatment?
- List of antibiotics that can only be prescribed after written permission of clinical microbiologist, based on indication (AZP)
- For these antibiotics pharmacist is checking duration of treatment
- Treatment recommendations based on guidelines and local susceptibility are being developed: www.antibiotica.sr
- Weekly meeting with microbiologists, infectious diseases specialists, expert in infection prevention and fellows

Problems we encounter

- Lab results are only recently introduced in WHONET (end 2017)
- We are lacking an Electronic Patient File and a LIS
- Insufficient manpower
- Insufficient means in general
- insufficiently equipped laboratory for advanced testing

Consequences

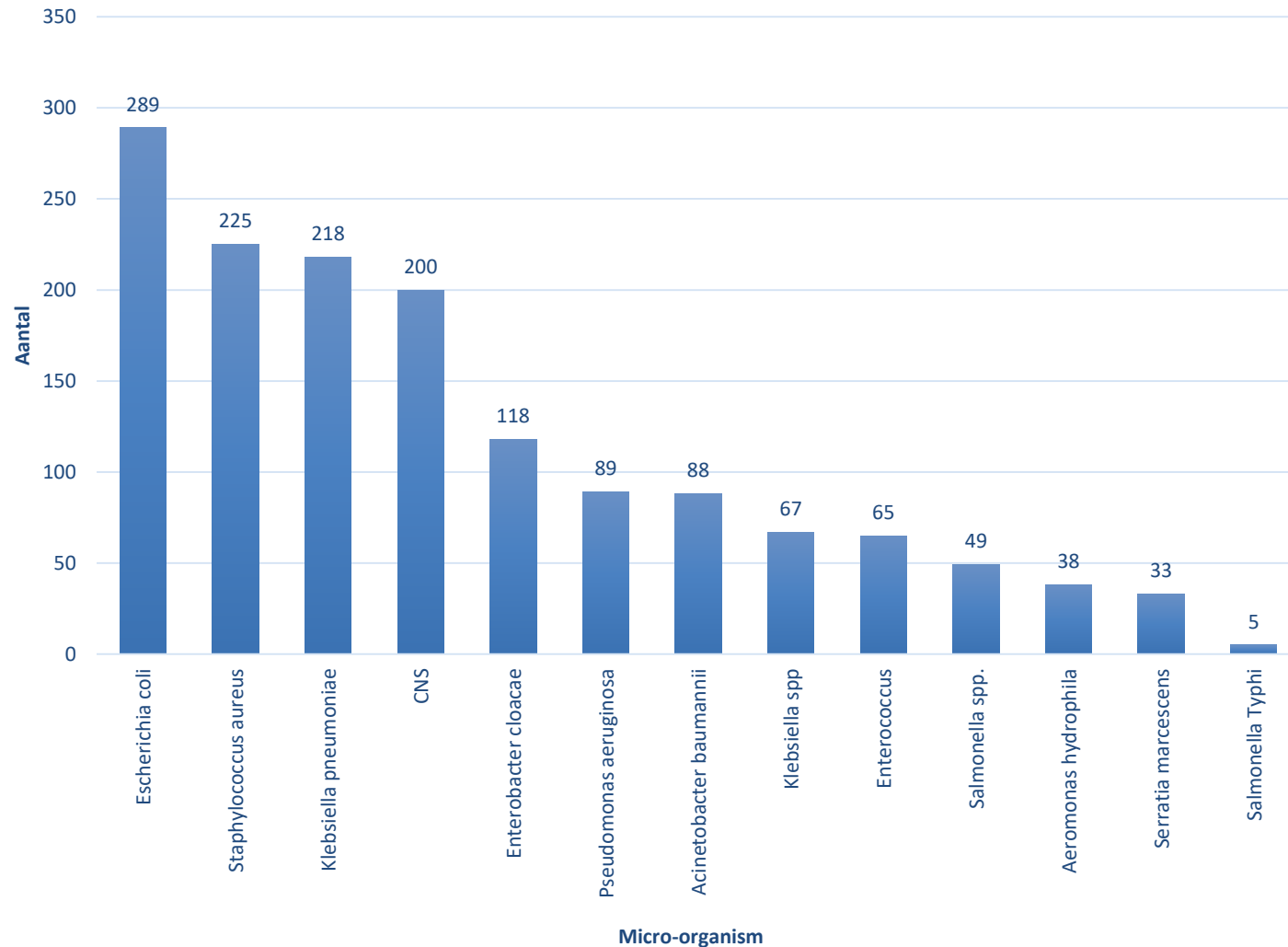
- Outbreak detection is hampered
- Health Care Associated infections due to insufficiently trained staff
- Cross-infections due to lack of compliance with infection prevention procedures
- Dissemination of multiresistant micro-organisms

Surveillance results

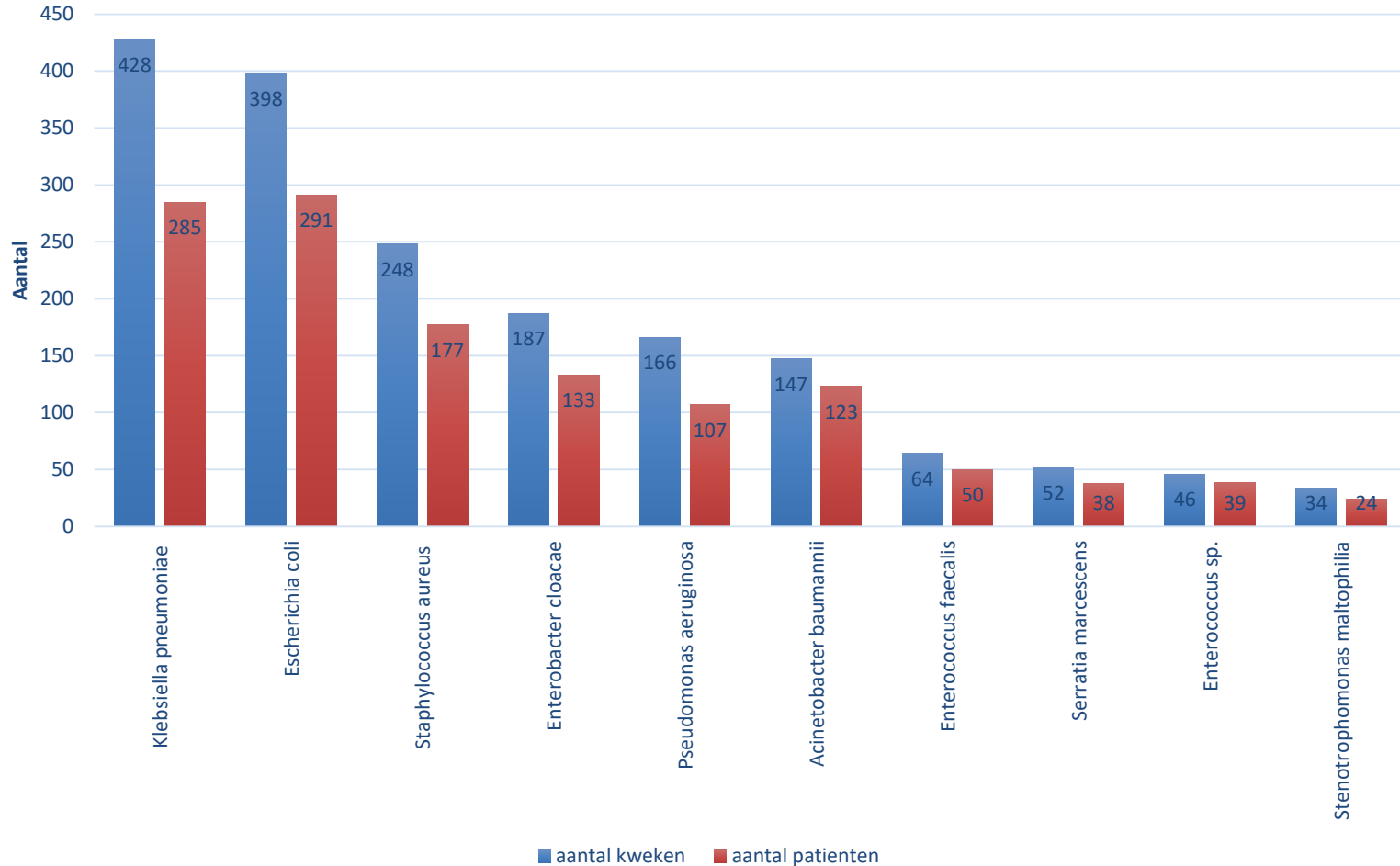
Remarks:

- Data before 2018 result from paper files
- Only data from 2012, 2015/2016 and 2018
- ESBL test results not available for 2012
- Only blood cultures
- If a patient has positive blood cultures with an interval of more than two weeks it is counted as a new episode

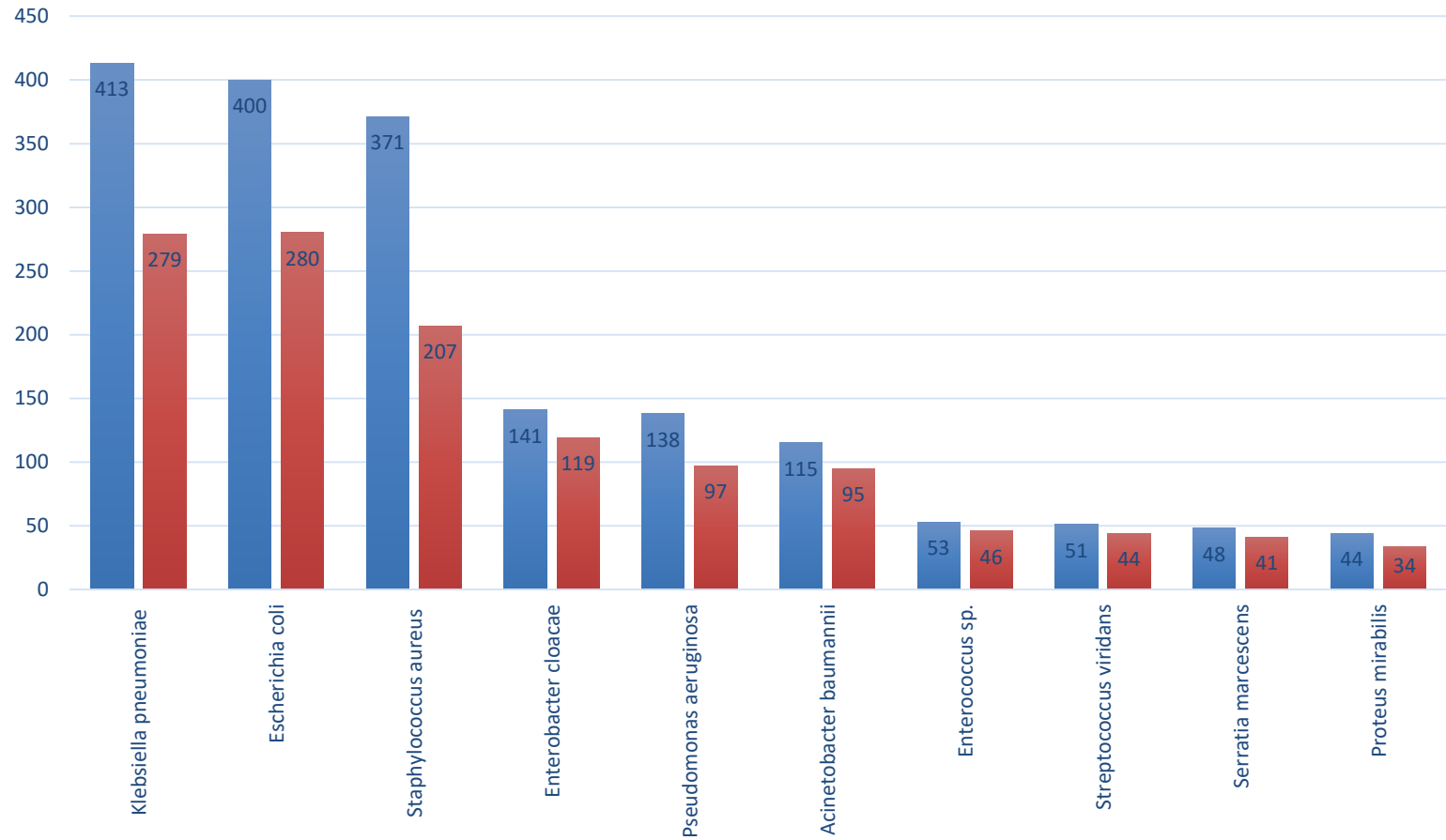
Isolated micro-organisms in blood 2012



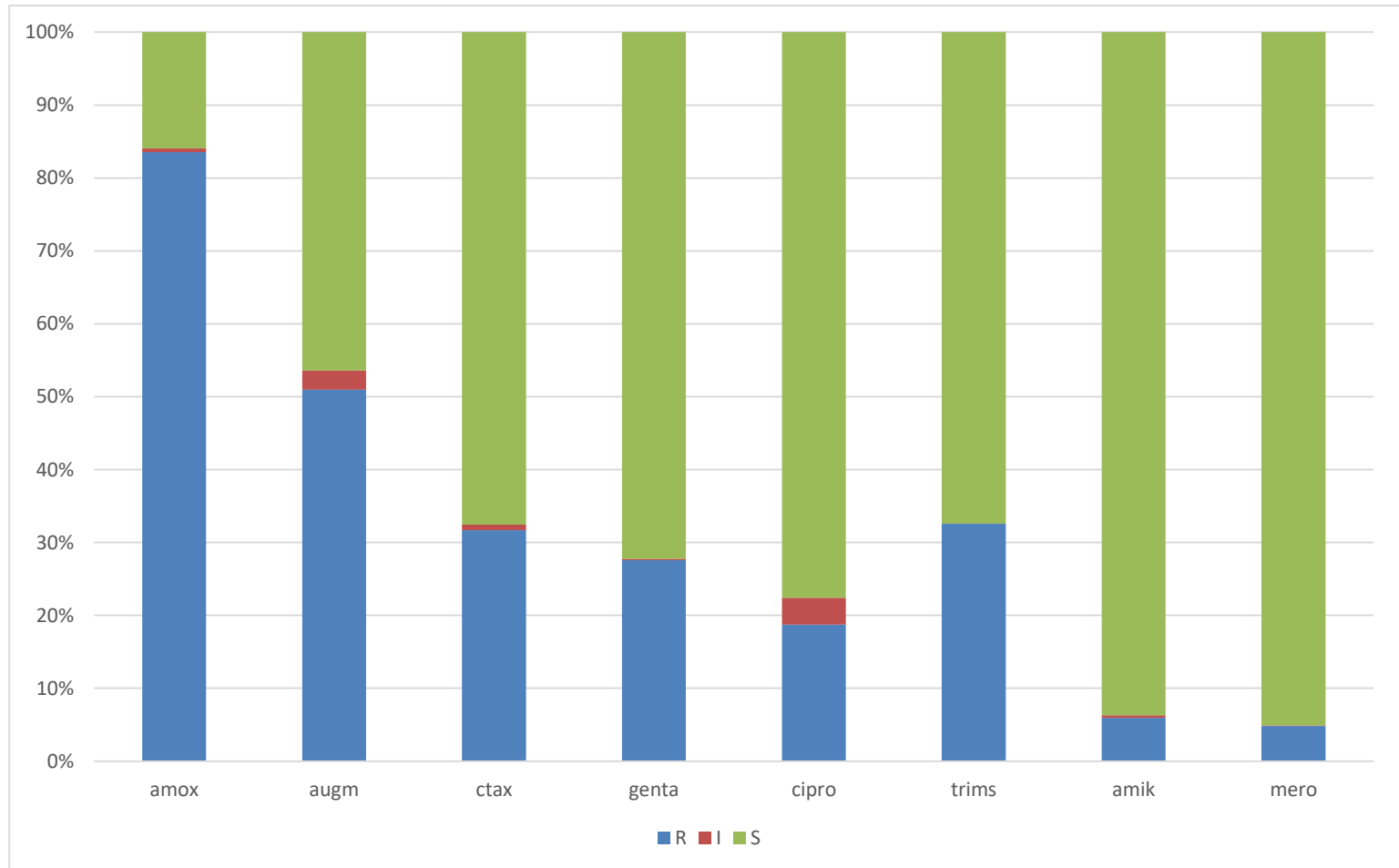
Isolated micro-organisms in blood 2015



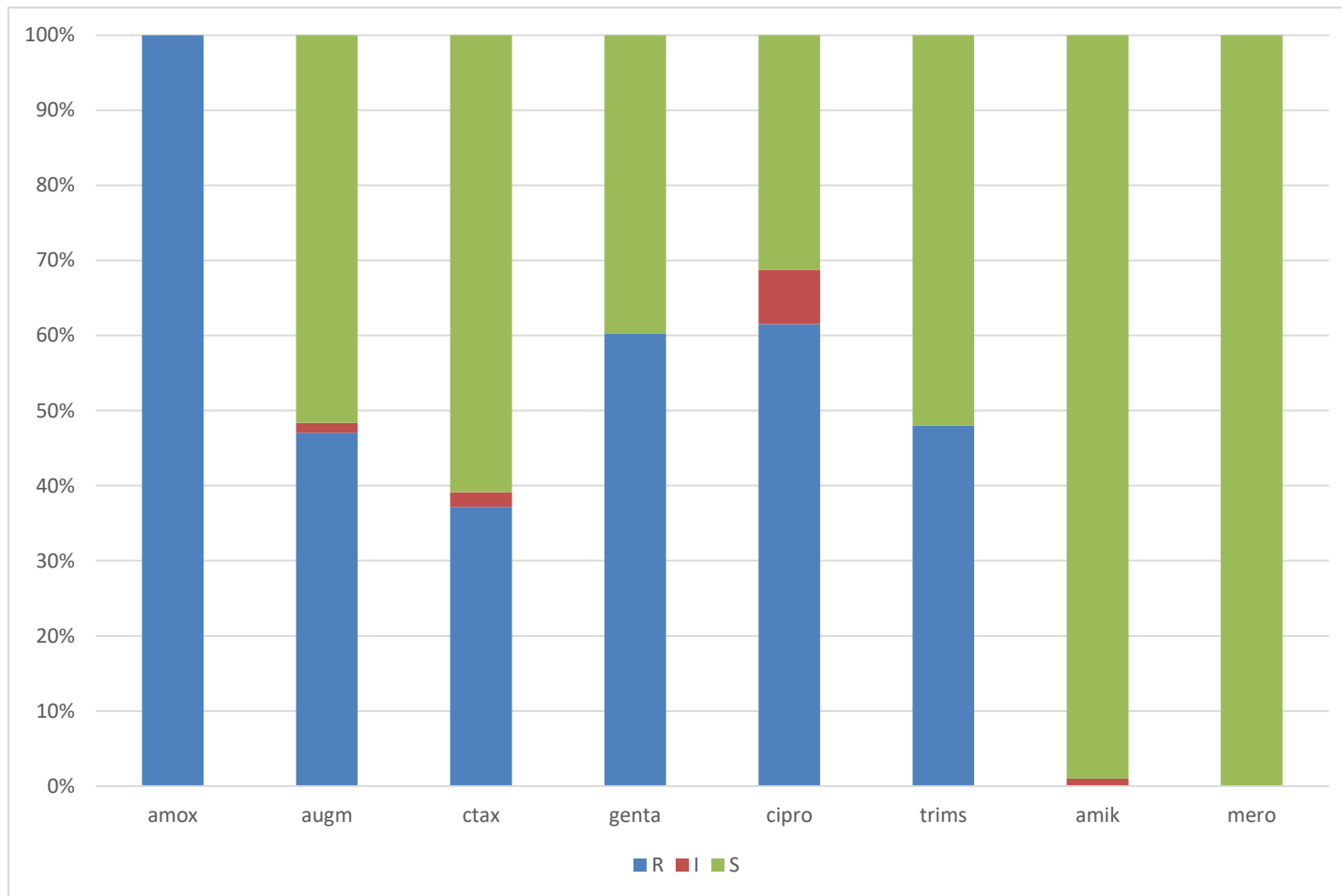
Isolated micro-organisms in blood 2018



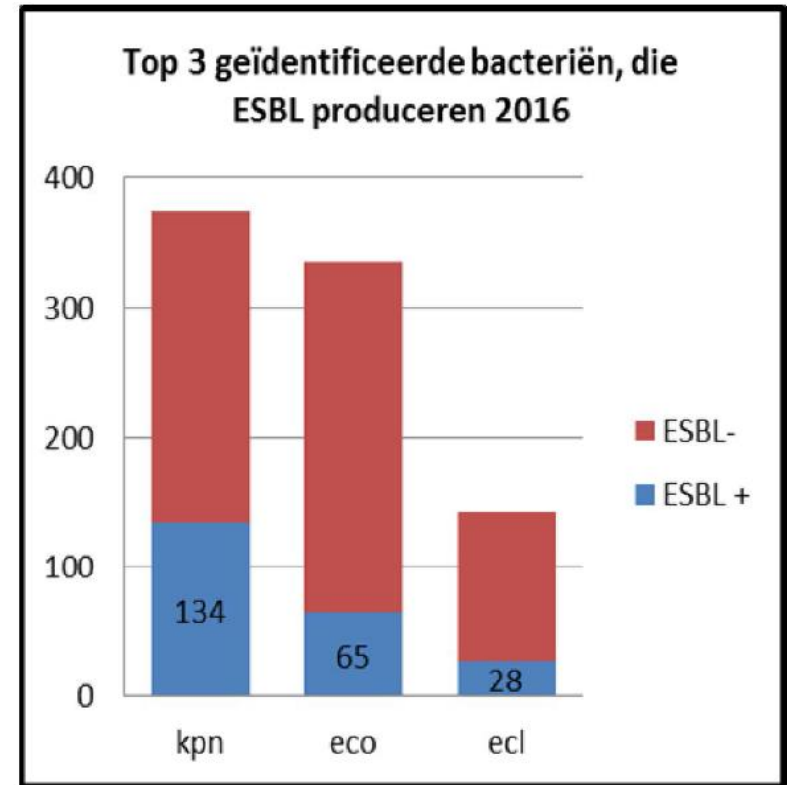
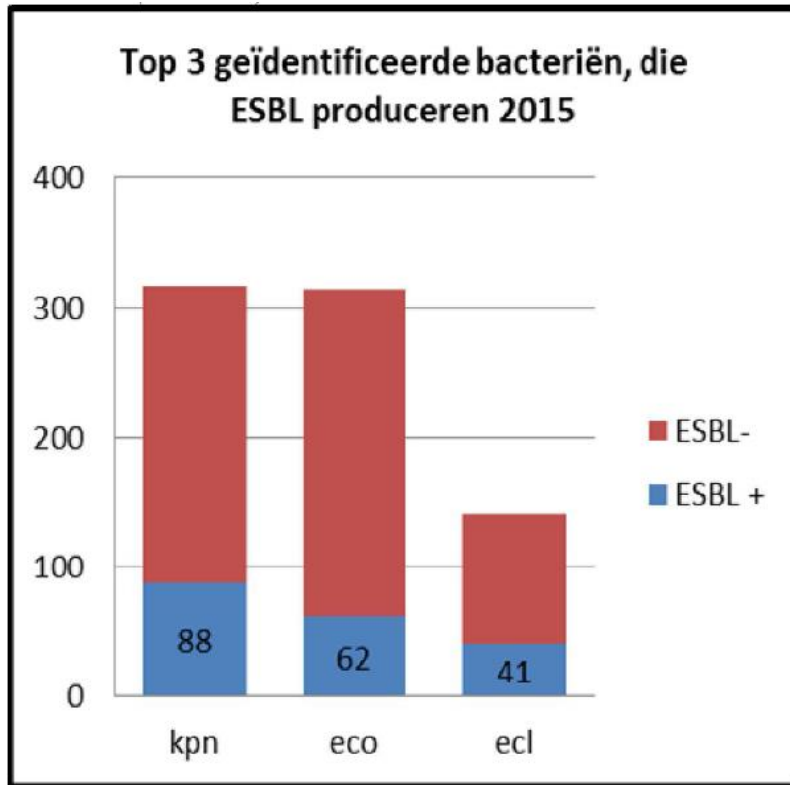
Gram-negative resistance (2018)



Klebsiella pneumoniae (2018)

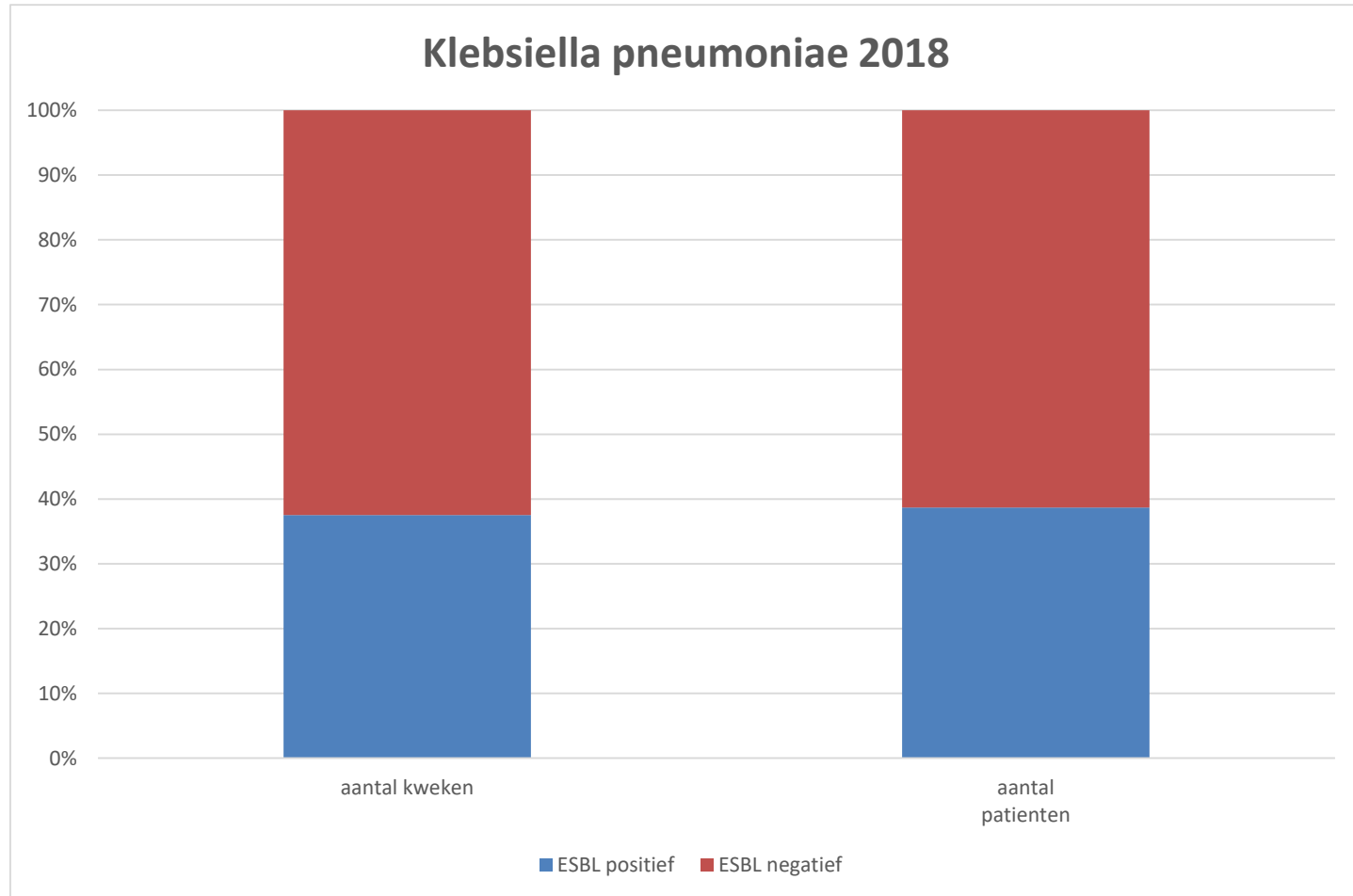


Increase in ESBL pos *Klebsiella*



ESBL pos *K. pneumoniae* 28% in 2015 and 35% in 2016

38% ESBL pos *Klebsiella* in 2018

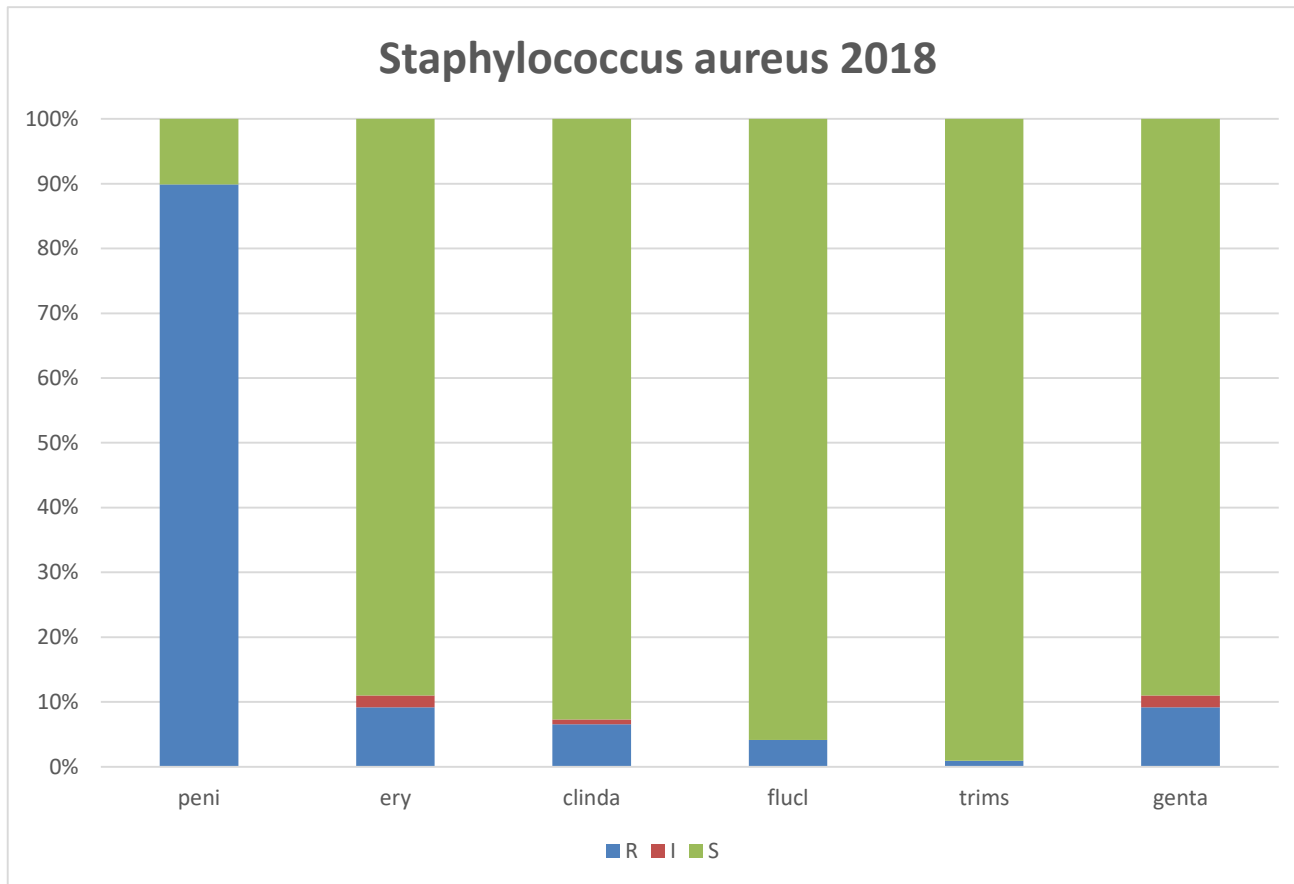


Emperical therapy

Cefotaxim and Gentamicine 2015		
ctax R, genta R	240	20,51%
ctax S, genta S	733	62,65%
ctax R, genta S	131	11,20%
ctax S, genta R	66	5,64%
Patients tested		1170
Number of bloodcultures		1563

Cefotaxim and Gentamicine 2018		
ctax R, genta R	255	22,32%
ctax S, genta S	707	61,91%
ctax R, genta S	117	10,25%
ctax S, genta R	63	5,52%
Patients tested		1142
Number of bloodcultures		1595

Low percentage of MRSA

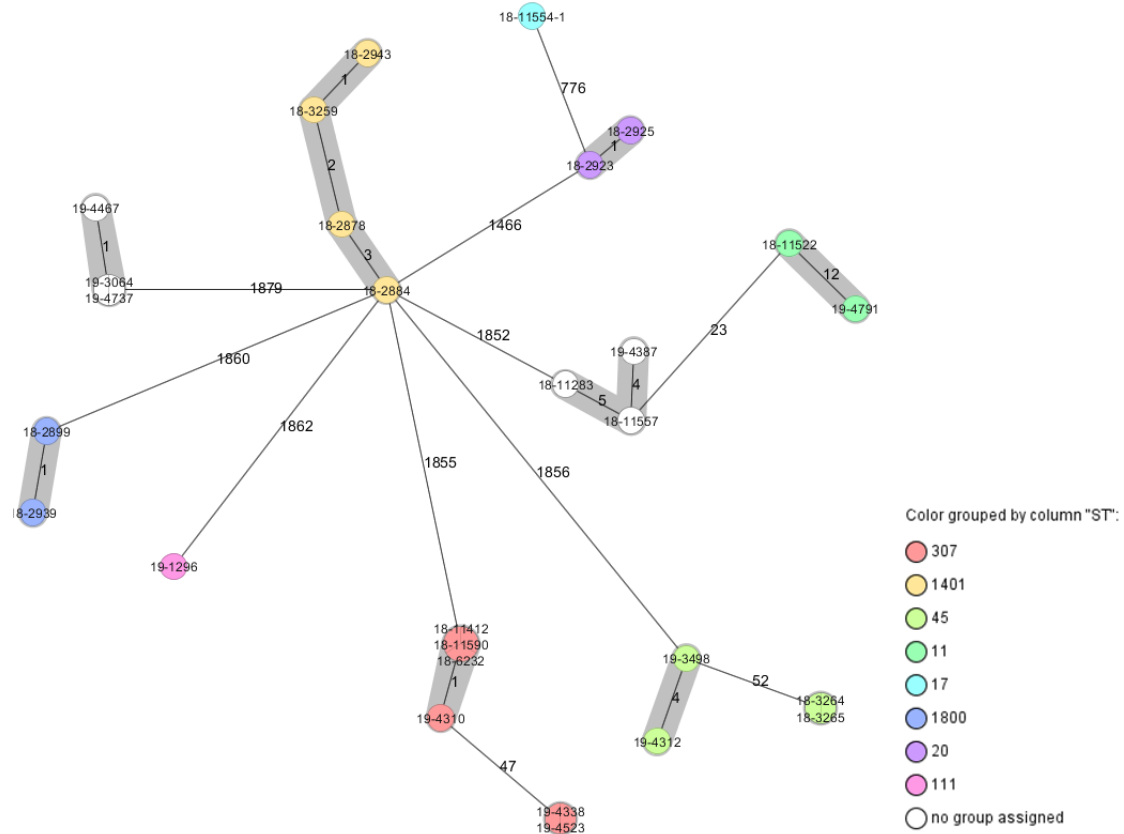


Current problems

- ESBL positive *Klebsiella pneumoniae* spreads through the hospital
- Panresistant *Acinetobacter baumannii* colonizes and infects patients infrequently (ICU)

cg_{MLSt} shows a large number of clusters

- Transmission between patients
 - ST1401
 - 4 patients in NICU
 - Within one week
- Transmission between patients less clear
 - ST307
 - Different wards
 - Different timeframes



Introduction Antimicrobial Stewardship

- Using the right antibiotic at the right time at the right dose for the right duration
- Primary goal
Optimize clinical outcomes while minimizing unintended consequences of antimicrobial use, including toxicity, the selection of pathogenic organisms, and the emergence of resistance

2017 Nationaal Antibioticum boekje

www.antibiotica.sr

2018 National Antibiotic Committee

2018 National Infection Prevention Committee



- Dr. IJzerman appointed by Minister as Focal point for AMR

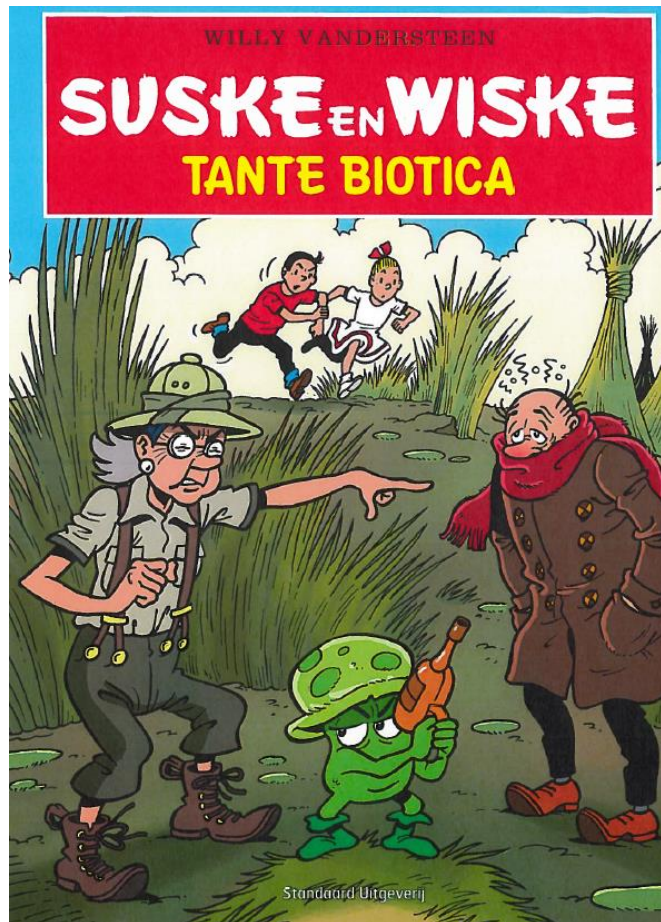
National

Antimicrobial Resistance (AMR) action plan

2019-2022

Strategic Objective Awareness

- Infomercial: PAHO Antibiotics handle with care 17.10.19
- Suske and Wiske:



Discussion

