Карагандинский государственный медицинский университет

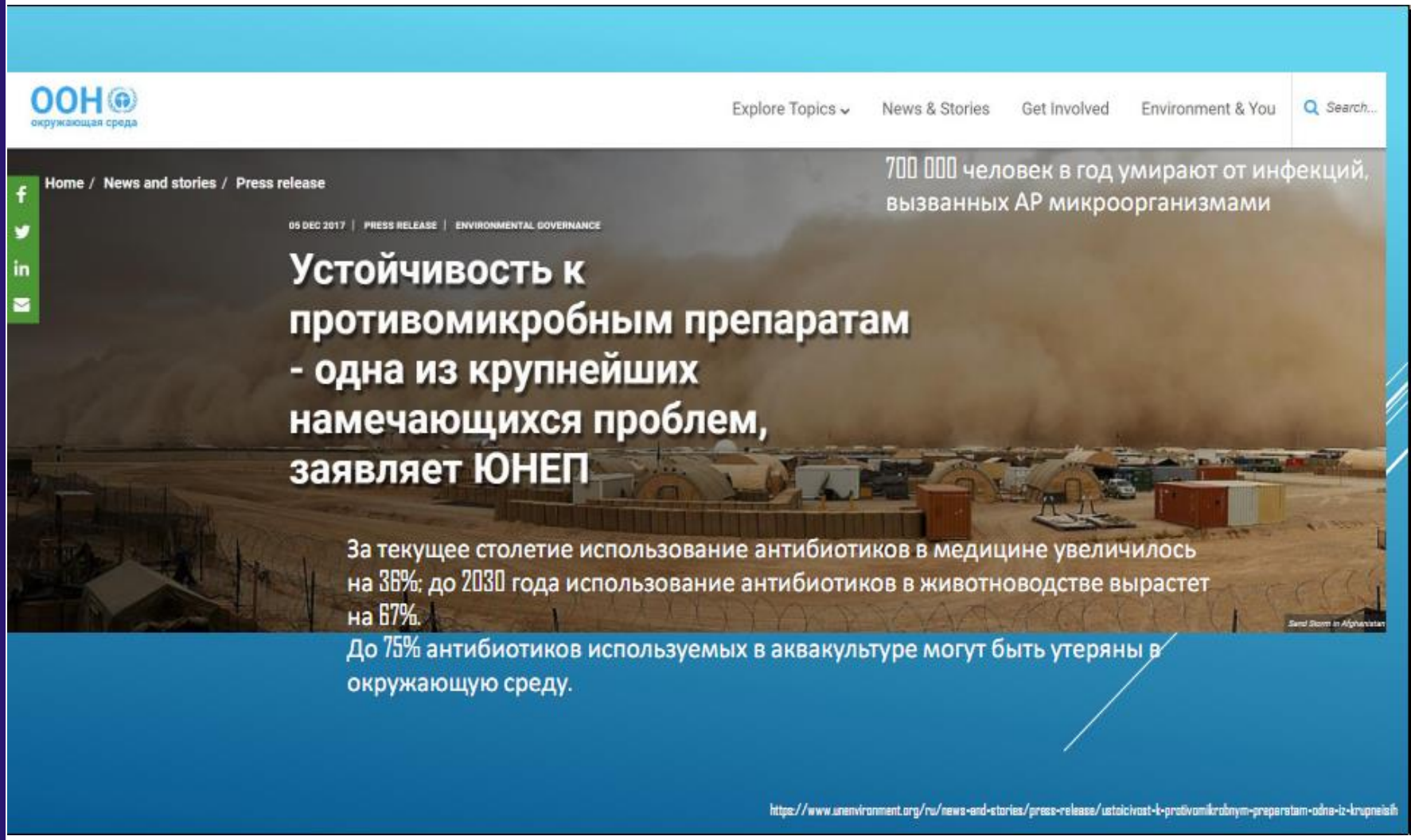
II

РЕСПУБЛИКАНСКИЙ ФОРУМ
специалистов лабораторной медицины
Республики Казахстан

Антибиотикорезистентность возбудителей инфекций мочевыделительного тракта в Республике Казахстан.

Научный сотрудник ЛКП,
магистр мед. наук, докторант
Лавриненко А.В.

7 декабря 2018г, Астана


ООН
окружающая среда
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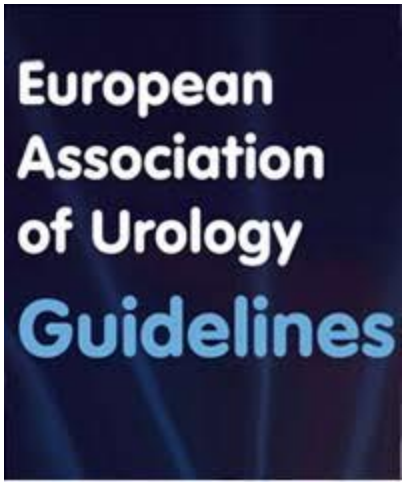
700 000 человек в год умирают от инфекций, вызванных АР микроорганизмами
05 DEC 2017 | PRESS RELEASE | ENVIRONMENTAL GOVERNANCE
Устойчивость к противомикробным препаратам - одна из крупнейших намечающихся проблем, заявляет ЮНЕП
За текущее столетие использование антибиотиков в медицине увеличилось на 36%; до 2030 года использование антибиотиков в животноводстве вырастет на 67%.
До 75% антибиотиков используемых в аквакультуре могут быть утеряны в окружающую среду.
https://www.unenvironment.org/ru/news-and-stories/press-release/ustoichivost-k-protivomikrobnym-preparatam-odna-iz-krupneishih

«…инфекции мочевых путей (ИМП) являются самыми частыми инфекциями у человека»



L. Nicolle

Принципы классификации

По локализации:

- Цистит
- Пиелонефрит
- Уретрит
- Простатит
- Фуникулит
- Эпидидимит
- Орхит

- Неосложненные
- Осложненные

- Внебольничные
- Нозокомиальные

esu

European school of urology

Российские национальные рекомендации, 2014
Европейская ассоциация урологов

Принципы классификации

Неосложненные:

- **Возникают в отсутствии нарушений оттока мочи и структурных изменений в органах мочевой системы**
- **При отсутствии серьезных сопутствующих заболеваний - у практически здоровых небеременных женщин**

Острые, спорадические, рецидивирующие

Осложненные:

- **Развивается на фоне структурных и функциональных аномалий мочевой системы**
- **У лиц с серьезными сопутствующими заболеваниями**
- **У мужчин**
- **У беременных женщин**

Повышен риск развития ИМП

Повышен риск неэффективности терапии ИМП

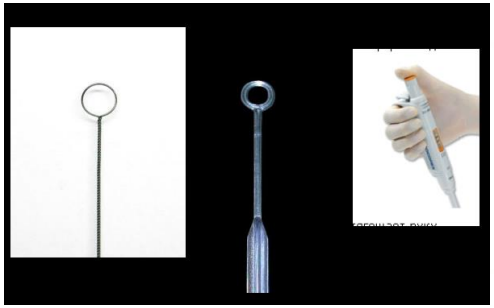
Микробиологическая диагностика ИМП

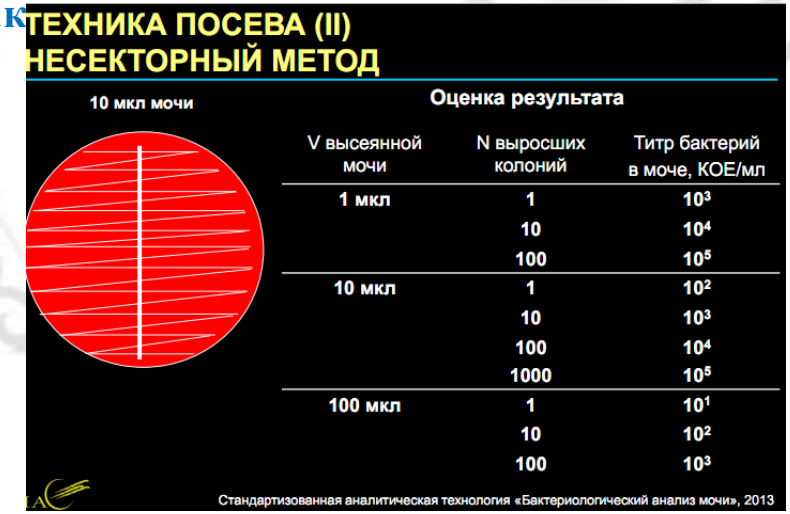
Проблемы:

- Взятие образцов мочи
- Лабораторный этап
- Контаминация
- Сложная интерпретация (представители нормальной микрофлоры)

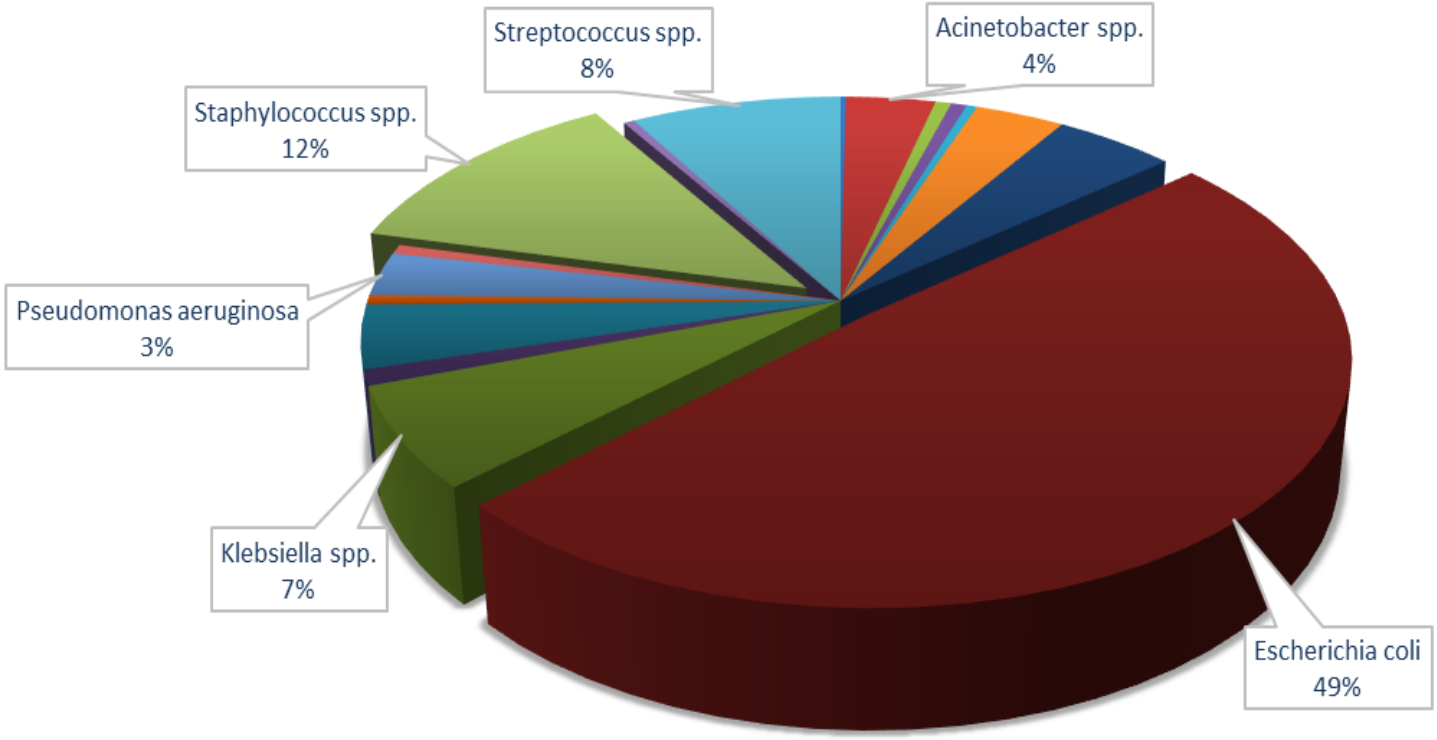
Причины

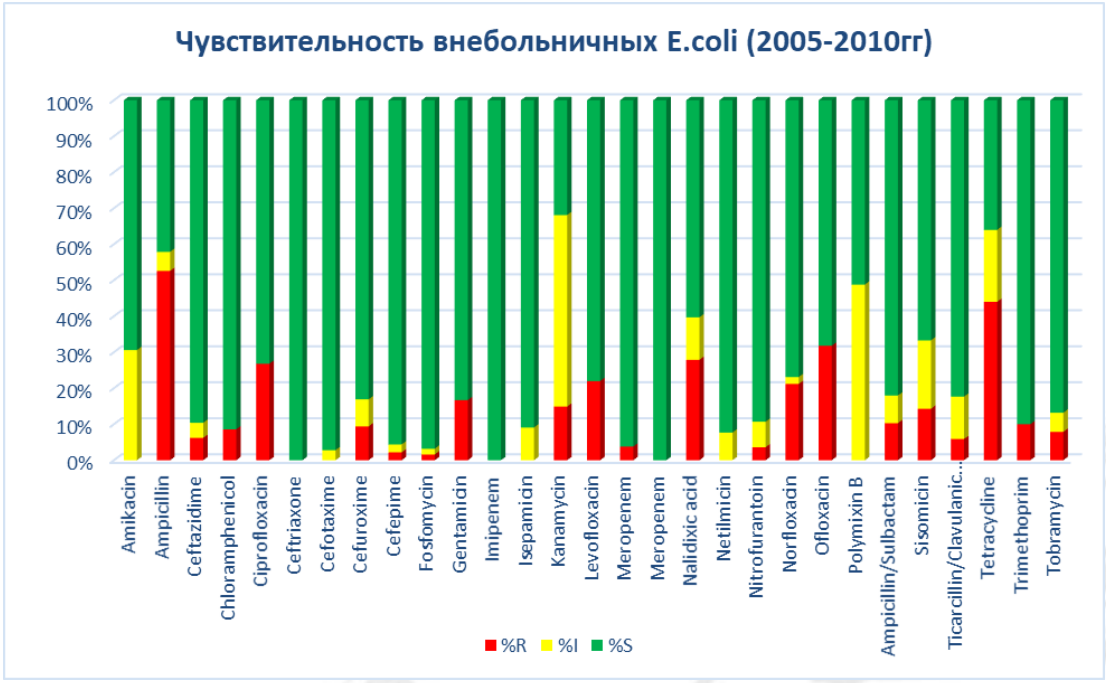
- Отсутствие нормативных документов, стандартизирующих методы клинической микробиологической диагностики
- Недостаточное оснащение лаборатории
- Отсутствие «заказа» со стороны прак

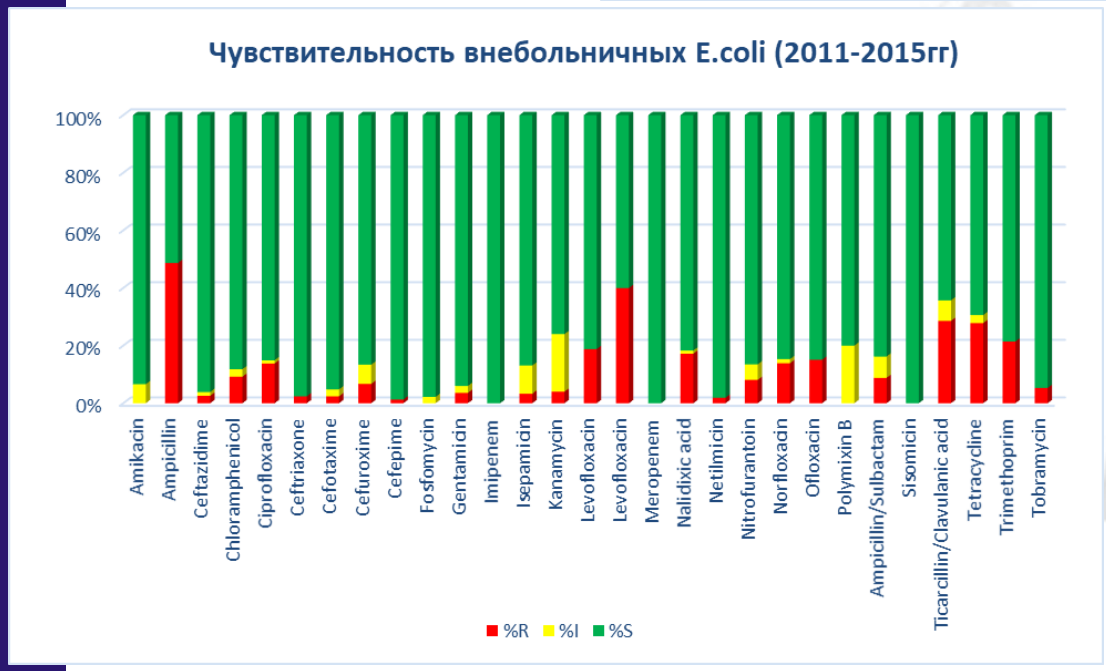


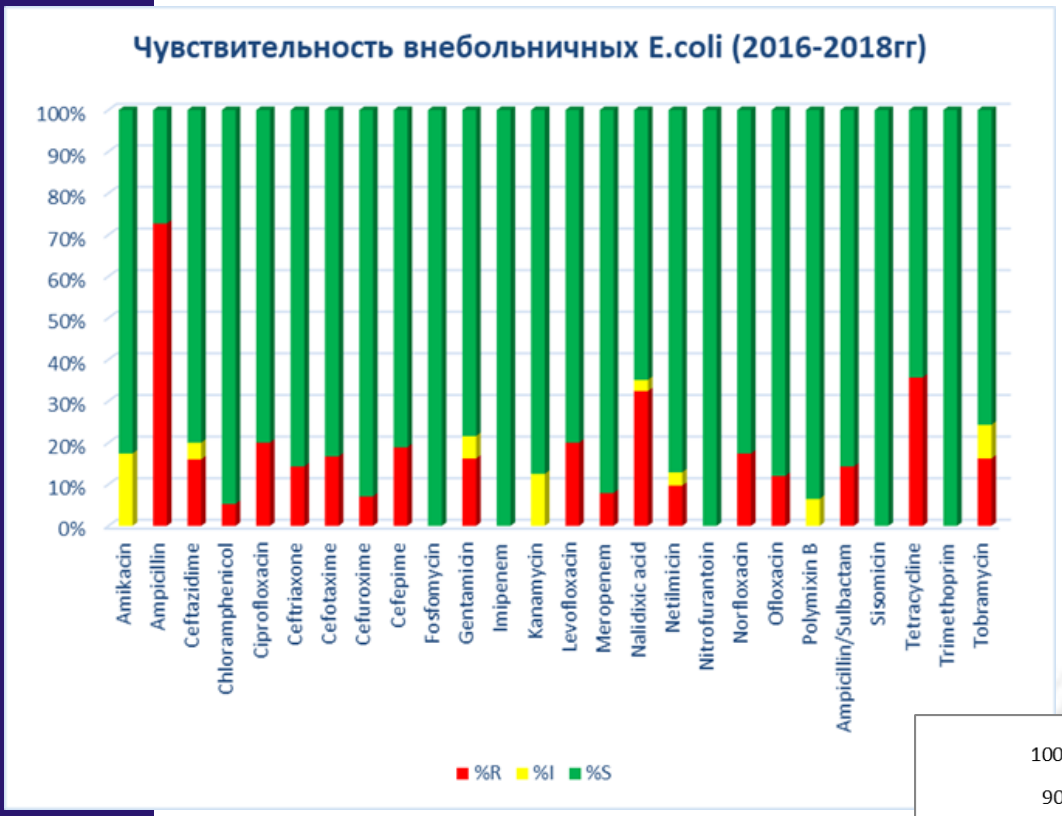


Общая структура возбудителей внебольничных ИМП (2009-2018гг) %

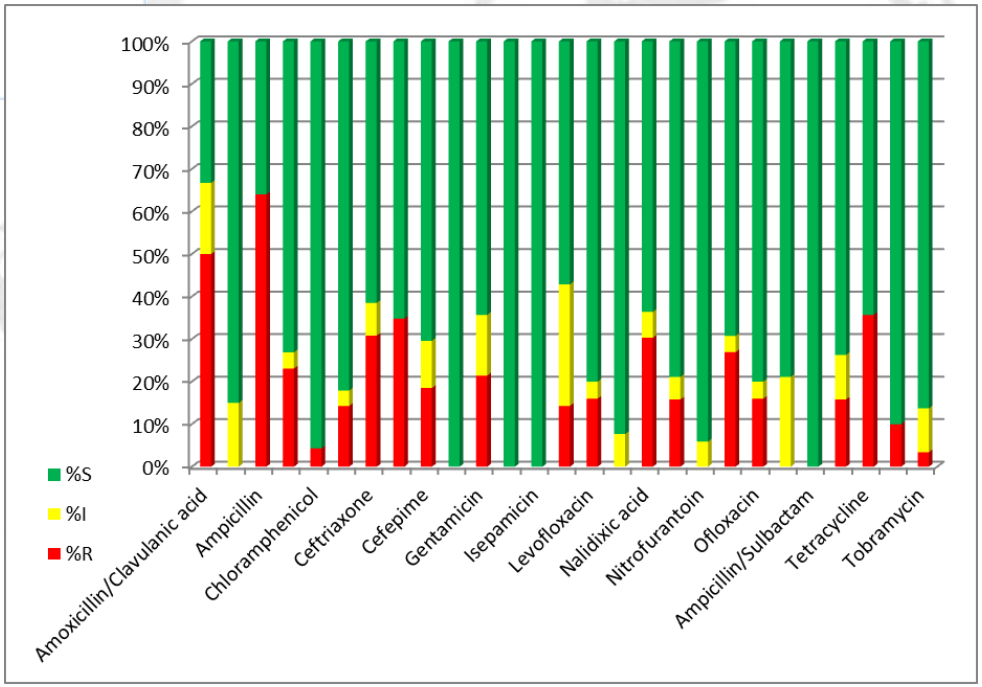



Чувствительность внебольничных E.coli (2005-2010гг)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Amikacin
Ampicillin
Ceftazidime
Chloramphenicol
Ciprofloxacin
Ceftriaxone
Cefotaxime
Cefuroxime
Cefepime
Fosfomycin
Gentamicin
Imipenem
Isepamicin
Kanamycin
Levofloxacin
Meropenem
Meropenem
Nalidixic acid
Netilmicin
Nitrofurantoin
Norfloxacin
Ofloxacin
Polymixin B
Ampicillin/Sulbactam
Sisomicin
Ticarcillin/Clavulanic...
Tetracycline
Trimethoprim
Tobramycin
%R
%I
%S

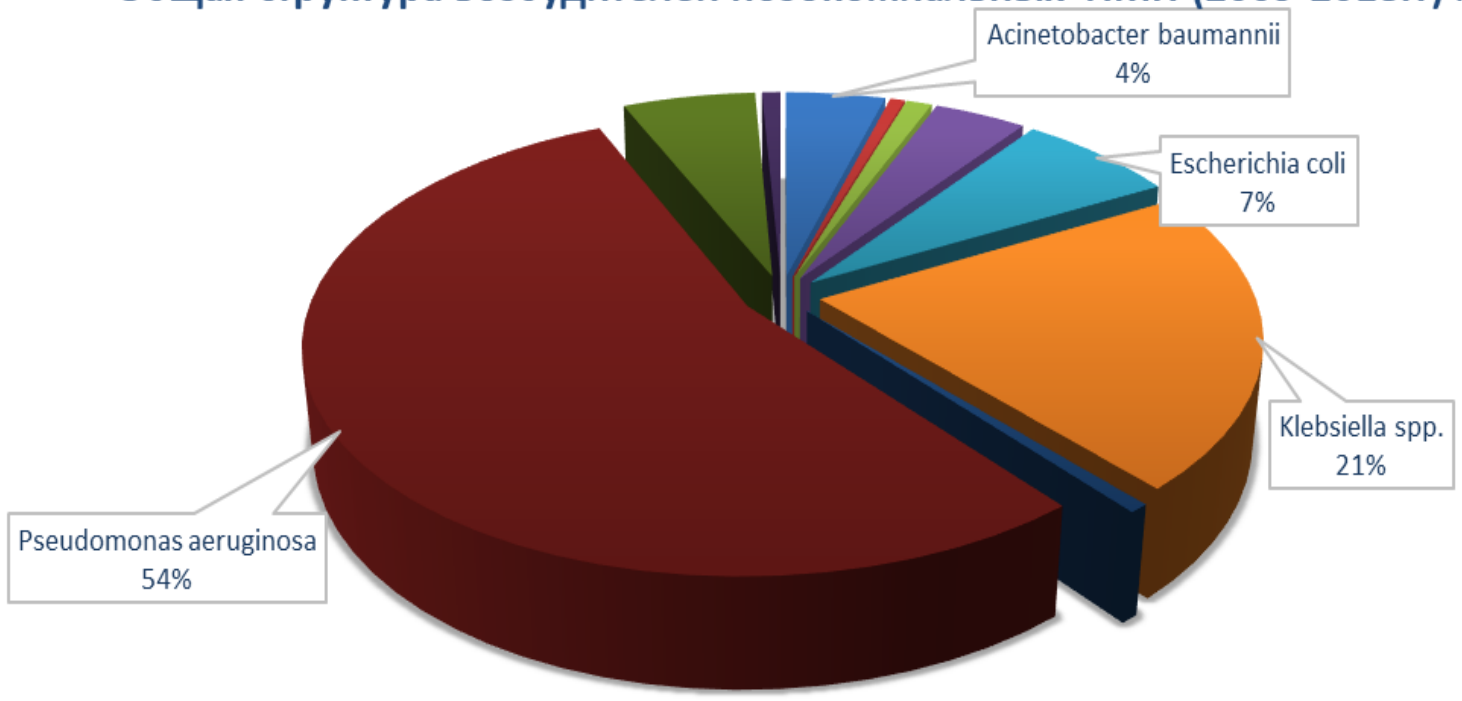

Чувствительность внебольничных E.coli (2011-2015гг)
100%
80%
60%
40%
20%
0%
Amikacin
Ampicillin
Ceftazidime
Chloramphenicol
Ciprofloxacin
Ceftriaxone
Cefotaxime
Cefuroxime
Cefepime
Fosfomycin
Gentamicin
Imipenem
Isepamicin
Kanamycin
Levofloxacin
Levofloxacin
Meropenem
Nalidixic acid
Netilmicin
Nitrofurantoin
Norfloxacin
Ofloxacin
Polymixin B
Ampicillin/Sulbactam
Sisomicin
Ticarcillin/Clavulanic acid
Tetracycline
Trimethoprim
Tobramycin
%R
%I
%S

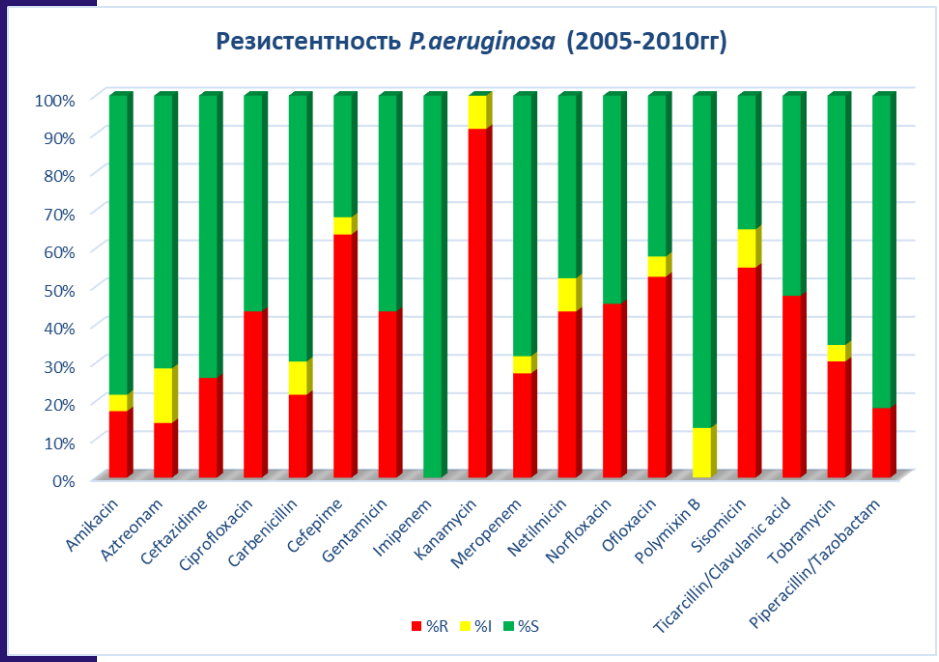


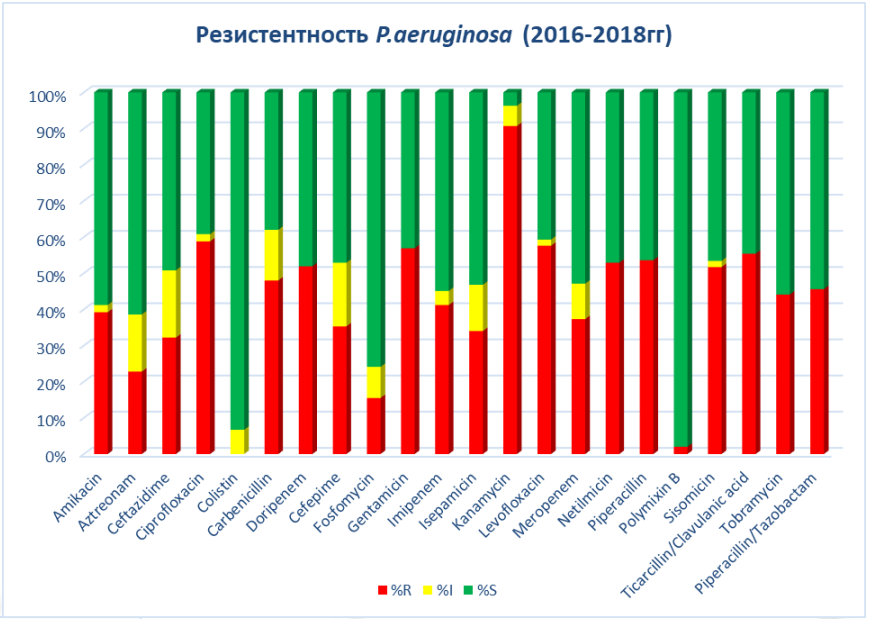
Чувствительность *E.coli*, выделенных в стационаре

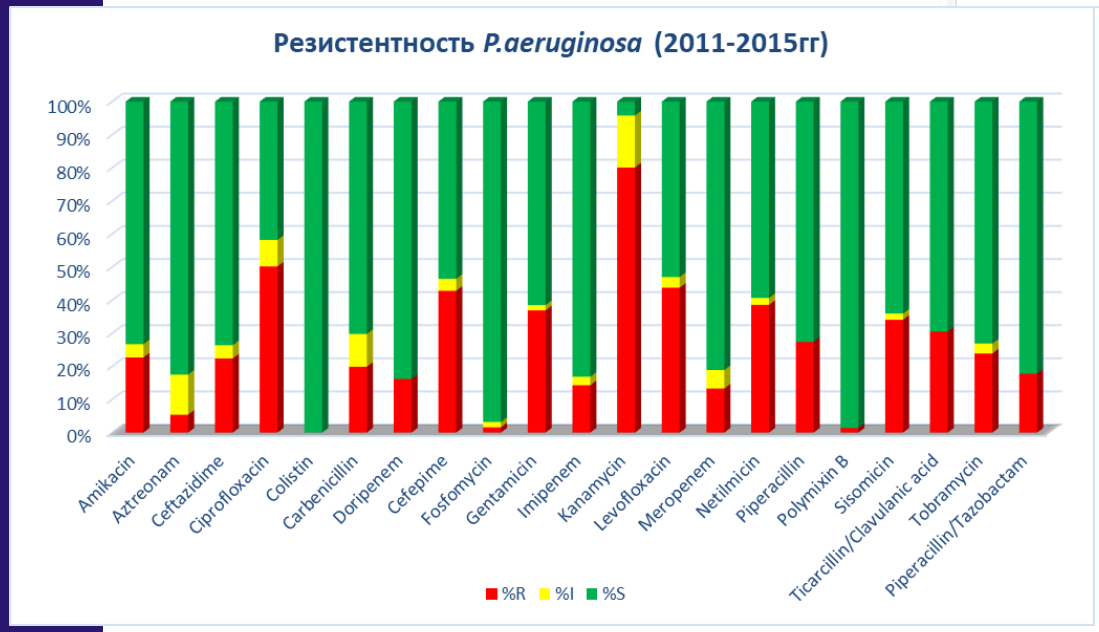


Общая структура возбудителей нозокомиальных ИМП (2009-2018гг) %

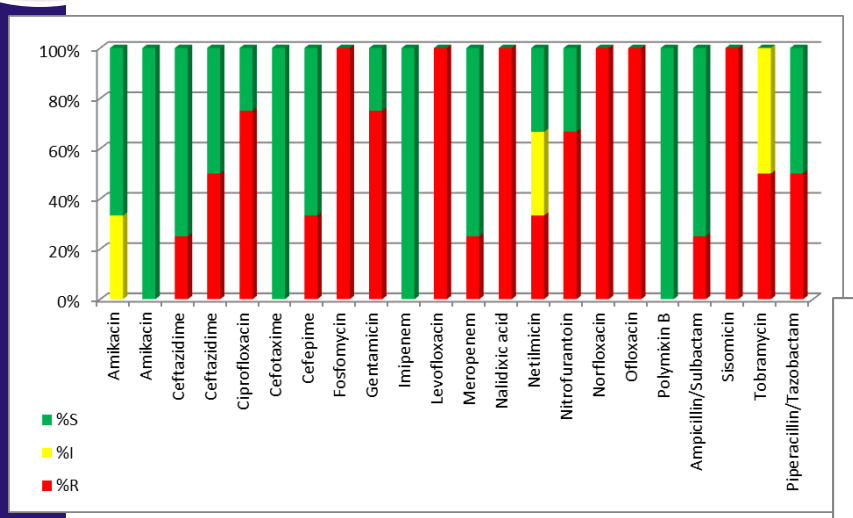



Резистентность P.aeruginosa (2005-2010гг)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Amikacin
Aztreonam
Ceftazidime
Ciprofloxacin
Carbenicillin
Cefepime
Gentamicin
Imipenem
Kanamycin
Meropenem
Netilmicin
Norfloxacin
Ofloxacin
Polymixin B
Sisomicin
Ticarcillin/Clavulanic acid
Tobramycin
Piperacillin/Tazobactam
%R
%I
%S

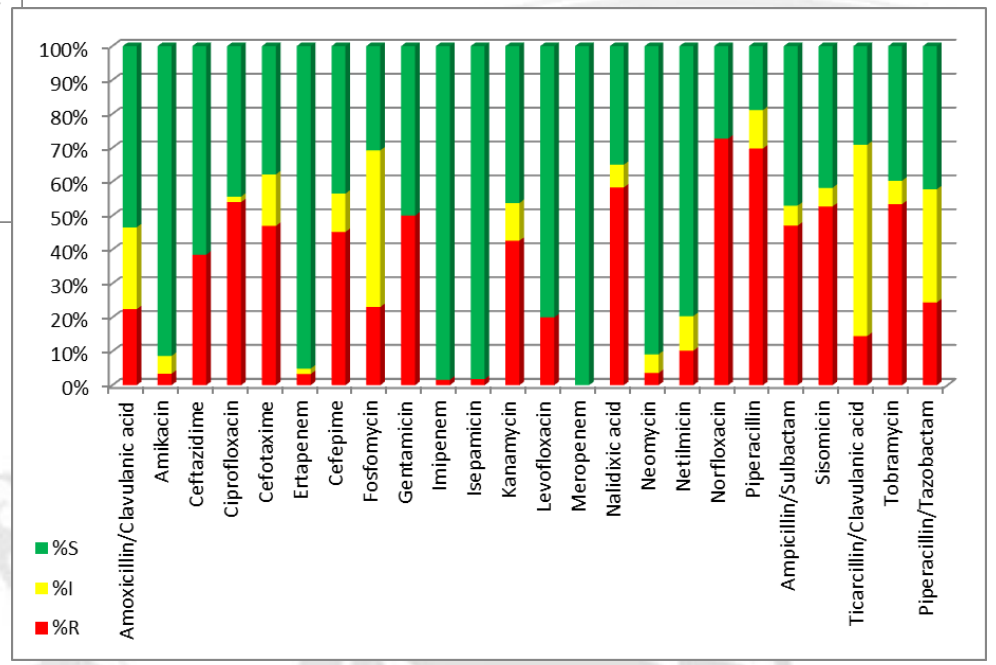

Резистентность P.aeruginosa (2016-2018гг)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Amikacin
Aztreonam
Ceftazidime
Ciprofloxacin
Colistin
Carbenicillin
Doripenem
Cefepime
Fosfomycin
Gentamicin
Imipenem
Isepamicin
Kanamycin
Levofloxacin
Meropenem
Netilmicin
Piperacillin
Polymixin B
Sisomicin
Ticarcillin/Clavulanic acid
Tobramycin
Piperacillin/Tazobactam
%R
%I
%S


Резистентность P.aeruginosa (2011-2015гг)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Amikacin
Aztreonam
Ceftazidime
Ciprofloxacin
Colistin
Carbenicillin
Doripenem
Cefepime
Fosfomycin
Gentamicin
Imipenem
Kanamycin
Levofloxacin
Meropenem
Netilmicin
Piperacillin
Polymixin B
Sisomicin
Ticarcillin/Clavulanic acid
Tobramycin
Piperacillin/Tazobactam
%R
%I
%S

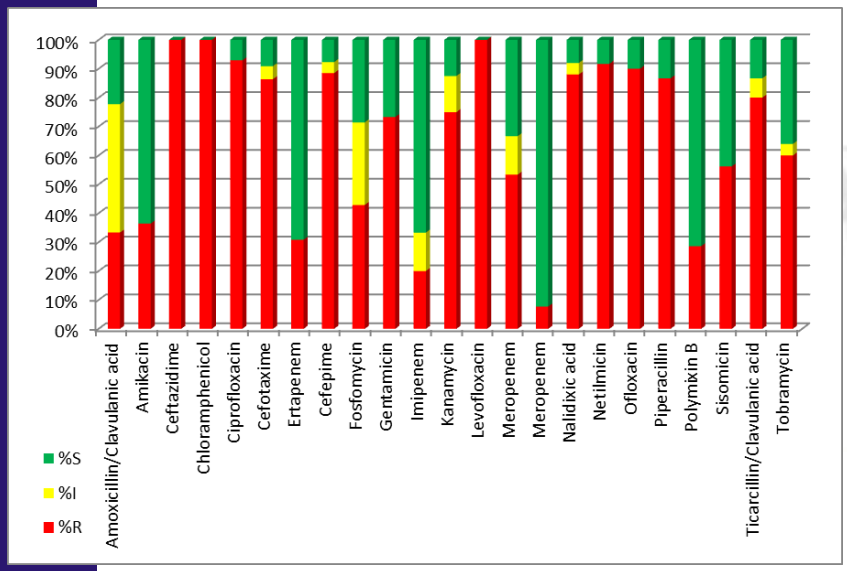
Резистентность *K.pneumoniae (нозокомиальные штаммы)*



2005-2010гг



2011-2015гг



2016-2018гг

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September 2016

ORIGINAL PAPER

PREVALENCE OF URINARY TRACT INFECTIONS ON PREGNANT WOMEN

Alyona Lavrinenko[1], Yerbol Tishkambayev[1], Yekaterina Serbo[1], Natalya Shambilova[1], Ilya Azizov[1], Tim Sandle[2], Attila Gellert Gyurka[3], Antonella Chește[3]

[1]Karaganda State Medical University, Kazakhstan
[2]University of Manchester, United Kingdom
[3]Faculty of Medicine, Transilvania University of Brașov, Romania

Antimicrobial Resistance and Infection Control 2017, 6(Suppl 2):25

Results
From October 2015 to September 2016, we found VRE in 82 cases (59.7% in female and 40.3% in male). The incidence rate of VRE was 0.03:1000 patient-days. Most cases were found in medical department (87.8%). Incidence of VRE-infected patients was 59.7% (49/82 cases). Majority of these cases (43/82 cases, 52.4%) were HAIs. Incidence of patients colonized with VRE was 40.3% (33/82 cases). The most common sites of the infections were catheter-associated urinary tract infections. The average of hospitalization cost and the cost of antibiotic therapy for each patient were 96,844 Baht and 30,721 Baht respectively. The average length of stay in hospital for each patient was 26.2 days.
Conclusions
As a result of this study, most of VRE-infected patients were HAIs. The impacts of the infection increased both in cost and length of hospital stay.

Session: Hospital Epidemiology& Surveillance

HE13
Incidence and risk factors of ventilator associated pneumonia in newborn at the national children's hospital, Vietnam
Ngal Le, Dung Khu
National Children's Hospital, Dong Da, Hanoi, Vietnam
Correspondence: Ngal Le (ngal.lekien@nhp.org.vn)
Antimicrobial Resistance and Infection Control 2017, 6(Suppl 2):HE13

Background
Newborn could be seen as patients who are potentially exposed to ventilator associated pneumonia (VAP) at high risk. Identify the incidence as well as risk factors for VAP in newborn would be much necessary for prevention application. This study aimed to identify incidence and risk factors of VAP in NICU at the National Children's Hospital (NCH) in Vietnam.
Materials and methods
This cohort prospective study was conducted between January and December in 2012. After univariate analysis, multivariate regression analysis was used to handle all statistically significant risk factors.
Results
602 neonates with mechanical ventilation (MV) were enrolled in our study. Among them, 151 neonates with VAP were determined with 159 episodes. Incidence rate (IR) was 25.1% (151/602); Incidence density rate (IDR) was 31.7/1000 ventilator days (159/5018 ventilator

Background
It does not cease to be an actual problem of the skin and soft tissue infections. For several years *S. aureus* occupies the leading position among the agents of these diseases.This study aimed to reflect the dynamics of sensitivity to antibiotics of *Staphylococcus aureus* (*S. aureus*), taken from patients with STI.
Materials and methods
Evaluation of the sensitivity to antibiotics *S. aureus* was conducted by retrospective methods. Material - wound discharge of patients with STI. Isolation of the pathogen was carried out by classical bacteriological methods. Species belonging was determined by the time-of-flight methods of mass spectrometry. Sensitivity to antibiotics was determined by disk diffusion methods according to CLSI standards.
Results
From 2013 to 2015 years, 179 samples were studied. During the study period, the percentage of detection of *S. aureus* ranged between 53% and 75% ($P > 0.05$). There is 100% sensitivity of the isolated strains in 2013 and 2016 to oxacillin, cefoxitin and vancomycin; in year 2014 2.3% of strains were resistant to oxacillin and cefoxitin. Sensitivity to the aminoglycosides group also retained for three years, but in 2014 4% of strains were resistant to gentamicin. Sensitivity to rifampicin and linezolid remains at 100%. 2.2% of strains were isolated resistant to fluoroquinolones group in 2014. MLS-resistant strains in the amount of 10% were isolated in 2013. And in year 2014 17.6% strains were resistant to lincomycin and 13.7% to azithromycin.
Conclusions
S. aureus keeps leading position among pathogens of skin and soft tissue infections, without any increase of level of antibiotic-resistance ($p > 0.05$).

Session: Microbiology

M2
Urinary tract infections in pregnancy women
Alyona Lavrinenko[1], Ilya Azizov[1], Yerbol Tishkambayev[1], Asylkhan Alibezov[1], Svetlana Kolesnichenko[1], Yekaterina Serbo[1]
[1]Karaganda State Medical University, Karaganda, Kazakhstan; [2]Institute of Antimicrobial Chemotherapy, Smolensk, Russia
Correspondence: Alyona Lavrinenko (lavrinenko.alena@gmail.com)
Antimicrobial Resistance and Infection Control 2017, 6(Suppl 2):M2

Европейский комитет по определению чувствительности к антимикробным препаратам (EUCAST) (www.eucast.org)

Приглашаем к сотрудничеству!

lavrinenko.alena@gmail.com