



Карагандинский государственный медицинский университет



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

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.

700 000 человек в год умирают от инфекций,
вызванных АР микроорганизмами

Sand Storm in Afghanistan



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



L. Nicolle



XVIII КОНГРЕСС РОССИЙСКОГО
ОБЩЕСТВА УРОЛОГОВ
И РОССИЙСКО-КИТАЙСКИЙ
ФОРУМ ПО УРОЛОГИИ





Принципы классификации

По локализации:

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



European
school
of urology

- Неосложненные
- Осложненные

- Внебольничные
- Нозокомиальные

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

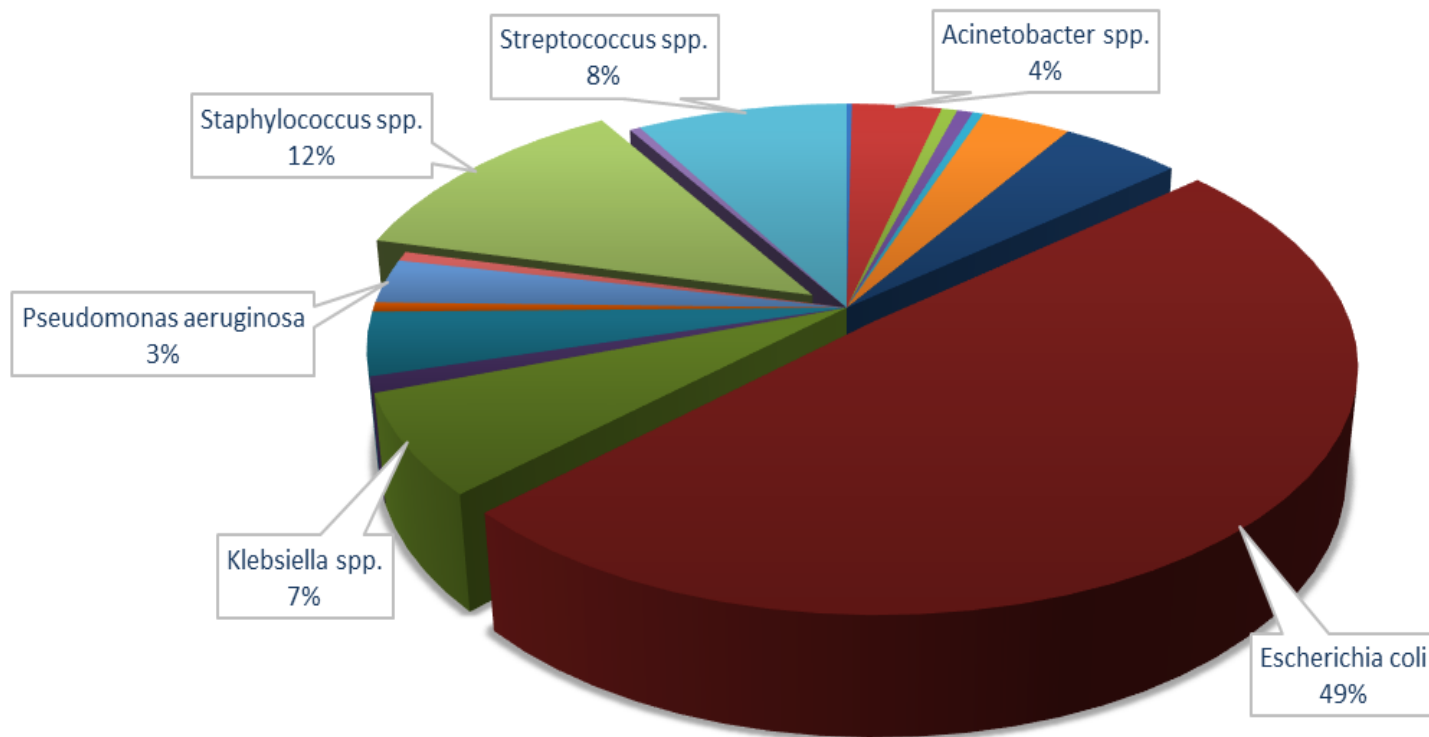
- Отсутствие нормативных документов, стандартизирующих методы клинической микробиологической диагностики
- Недостаточное оснащение лаборатории
- Отсутствие «заказа» со стороны практикующих врачей



ТЕХНИКА ПОСЕВА (II) НЕСЕКТОРНЫЙ МЕТОД



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



Acidaminococcus sp.
Citrobacter freundii
Klebsiella spp.
Pseudomonas aeruginosa
Streptococcus spp.

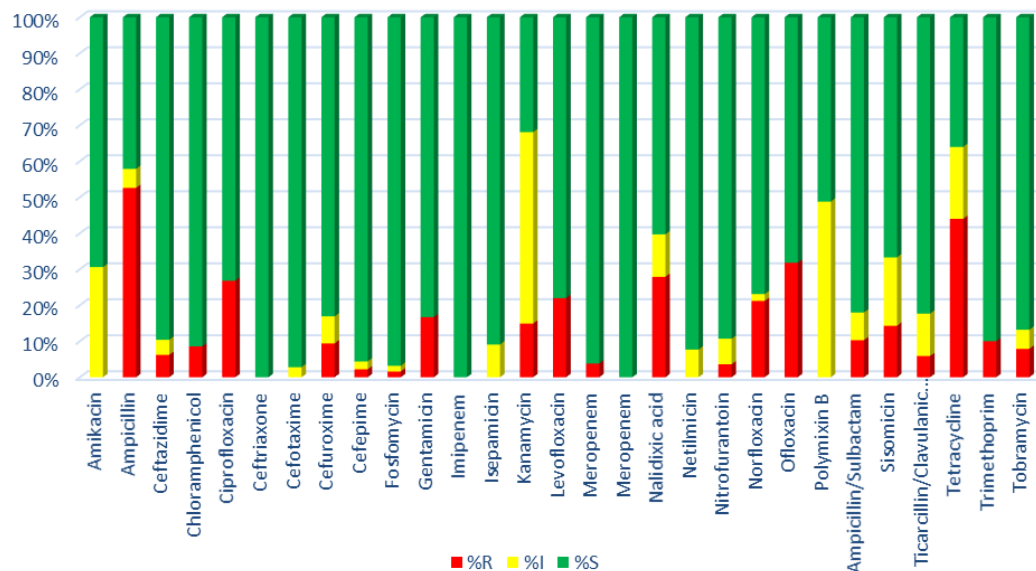
Acinetobacter spp.
Enterobacter spp.
Moraxella spp.
Serratia spp.

Alcaligenes spp.
Enterococcus spp.
Proteus spp.
Staphylococcus spp.

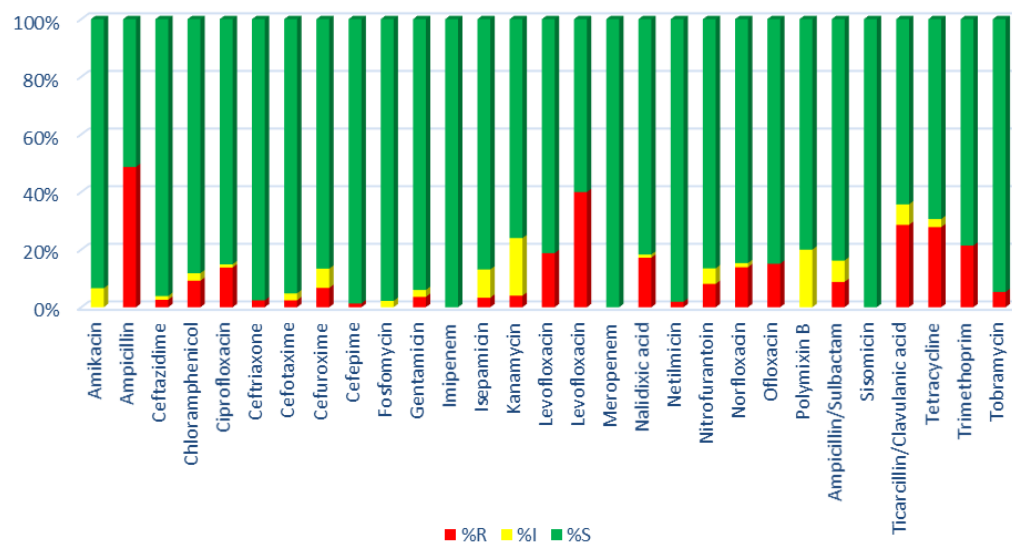
Burkholderia sp.
Escherichia coli
Providencia spp.
Stenotrophomonas maltophilia



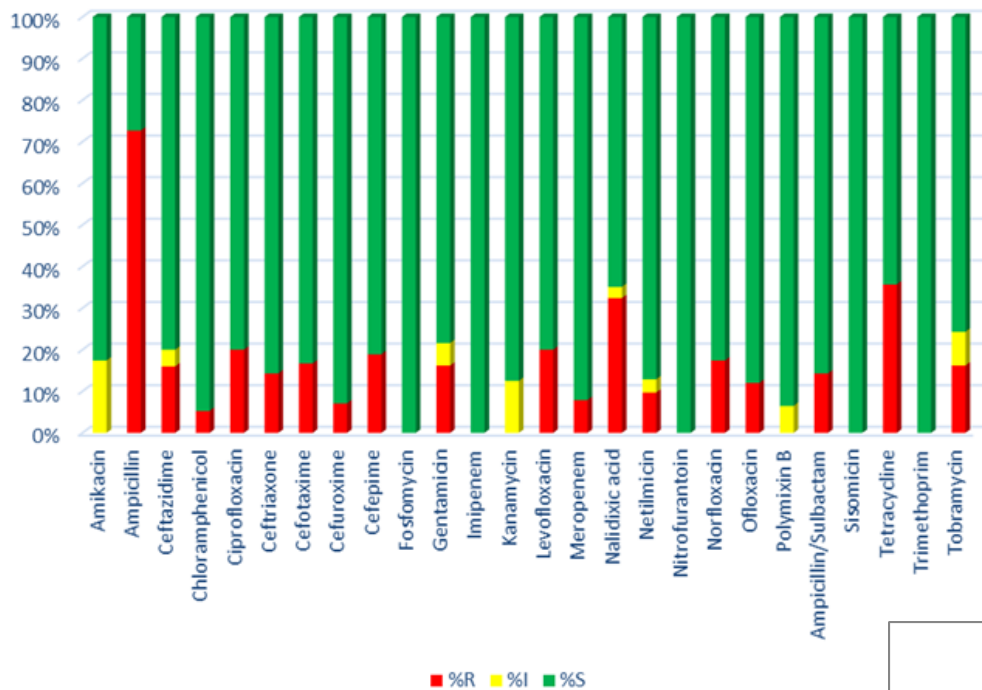
Чувствительность внебольничных E.coli (2005-2010гг)



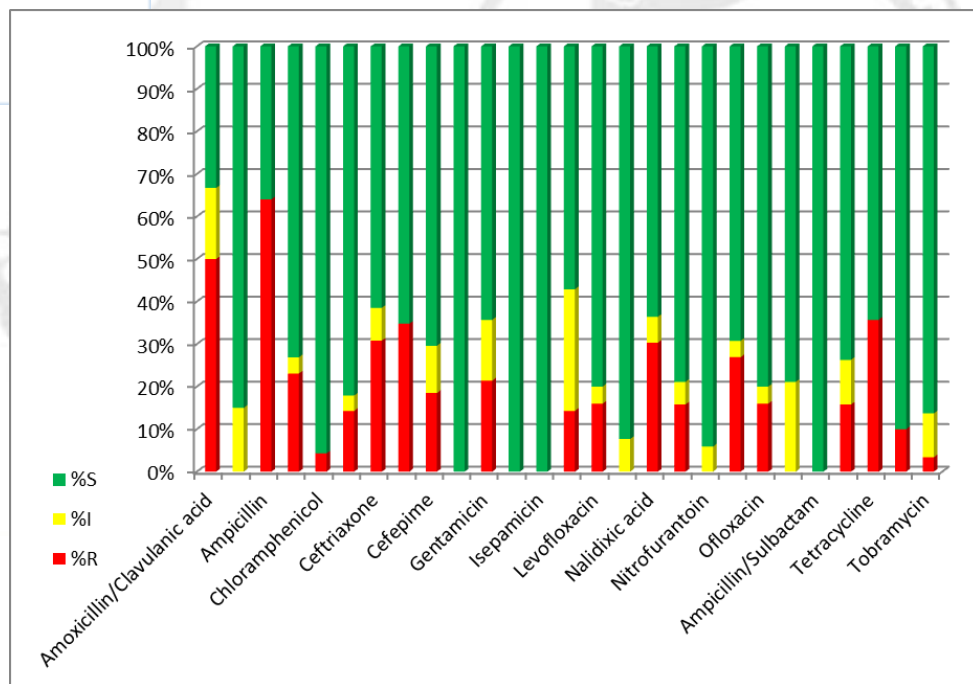
Чувствительность внебольничных E.coli (2011-2015гг)



Чувствительность внебольничных E.coli (2016-2018гг)

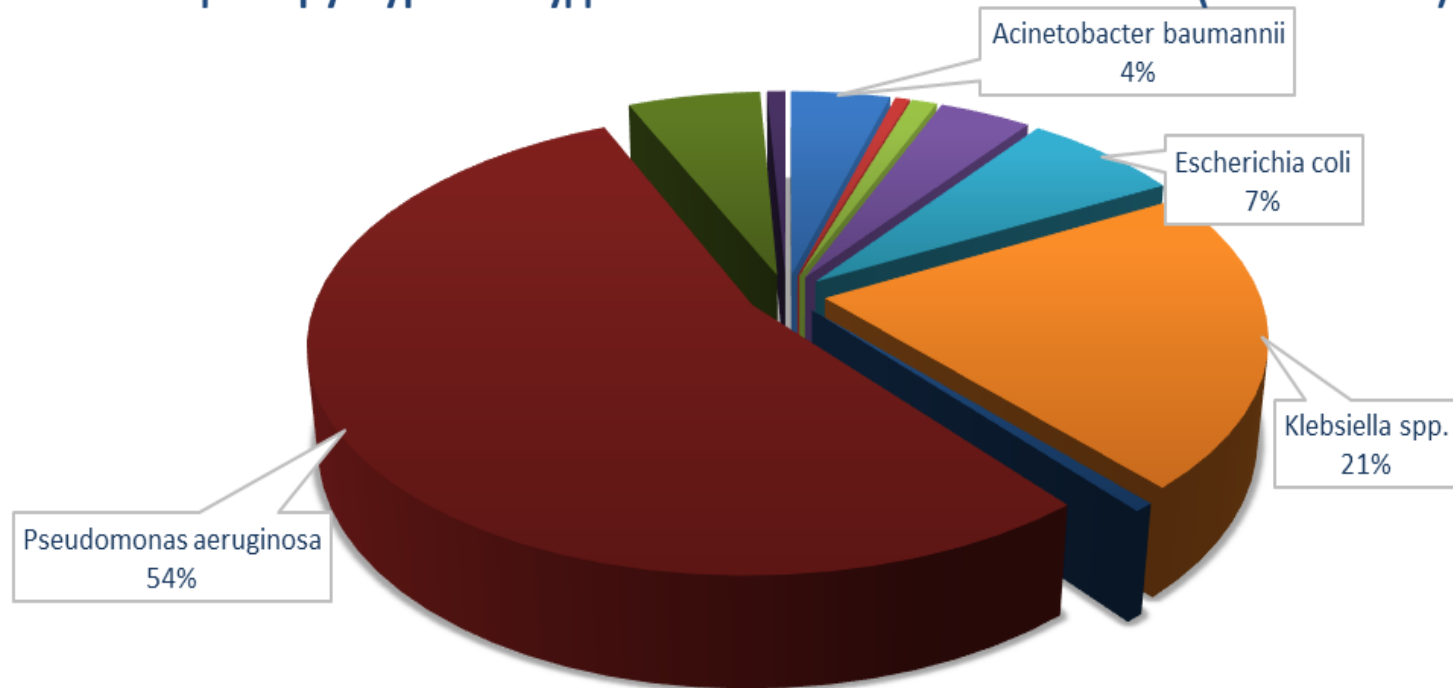


Чувствительность *E. coli*,
выделенных в стационаре



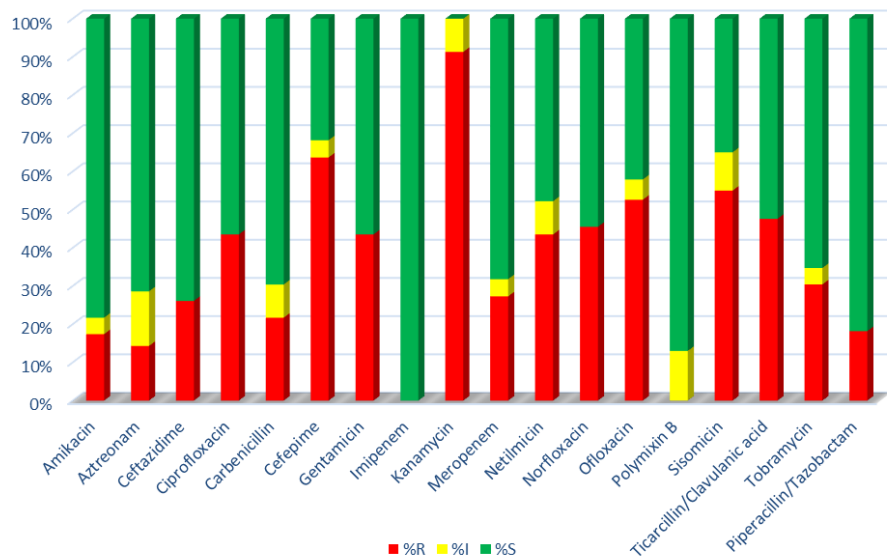


Общая структура возбудителей нозокомиальных ИМП (2009-2018гг) %

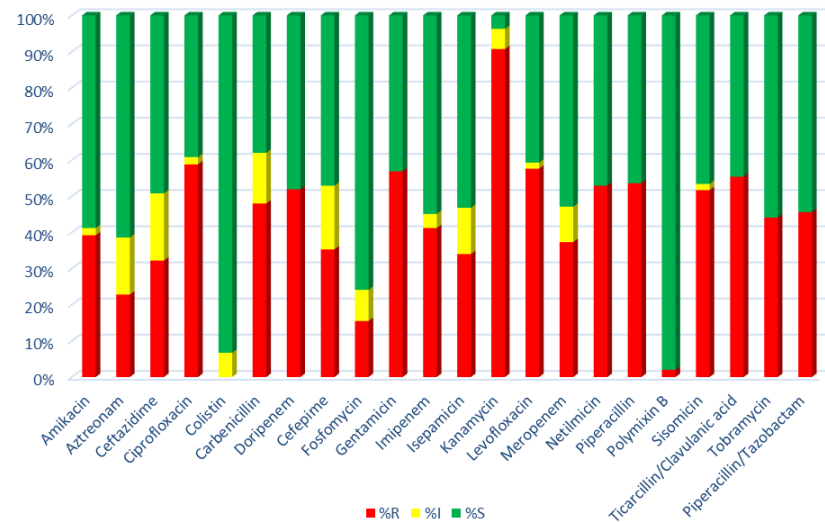


■ Acinetobacter baumannii ■ Burkholderia spp. ■ Enterobacter spp. ■ Enterococcus spp. ■ Escherichia coli
■ Klebsiella spp. ■ Proteus spp. ■ Pseudomonas aeruginosa ■ Staphylococcus spp. ■ Streptococcus spp.

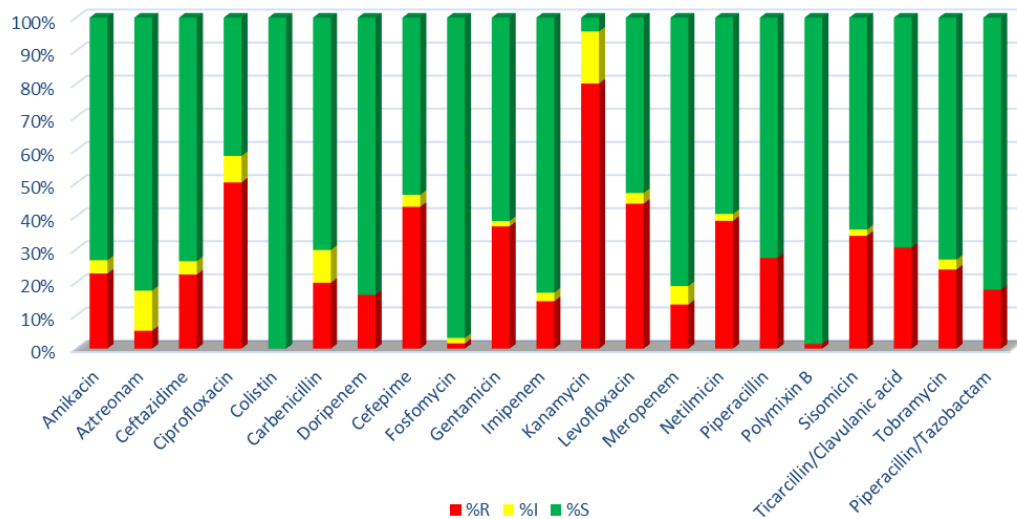
Резистентность *P.aeruginosa* (2005-2010rr)



Резистентность *P.aeruginosa* (2016-2018rr)



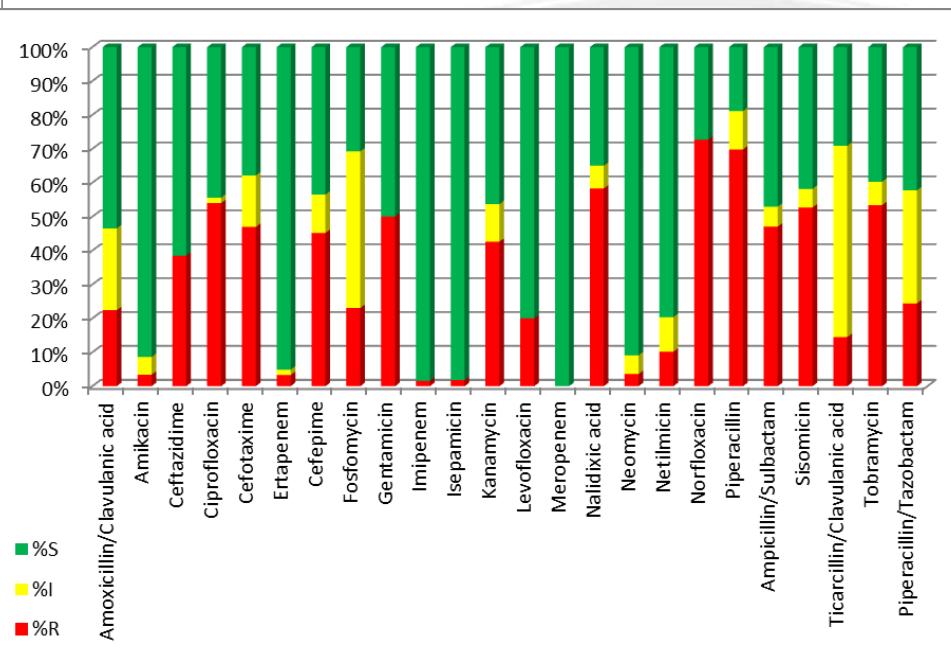
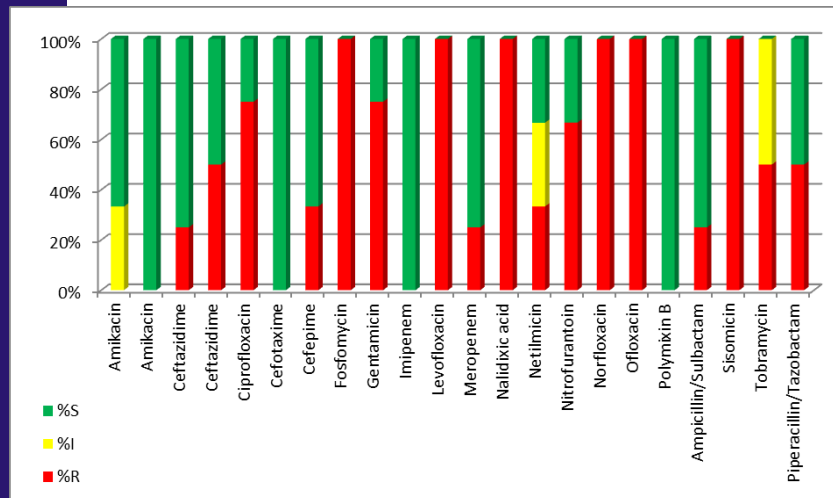
Резистентность *P.aeruginosa* (2011-2015rr)



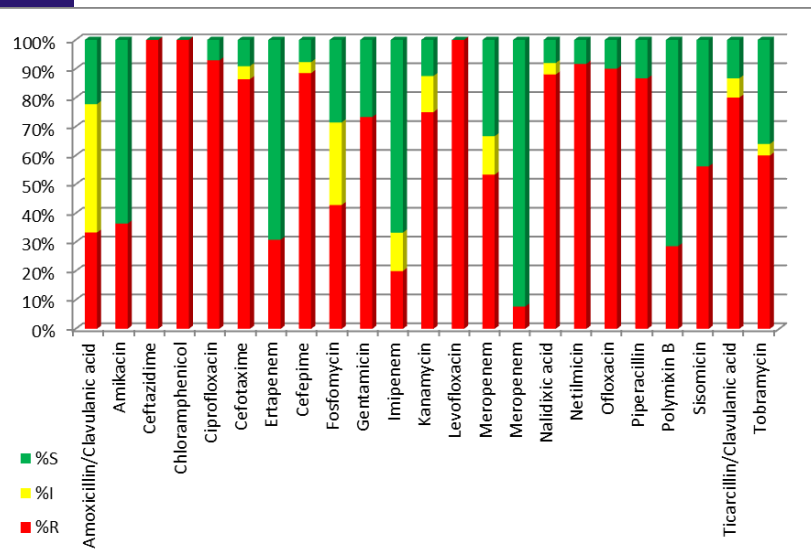


Резистентность *K. pneumoniae* (нозокомиальные штаммы)

2005-2010гг



2011-2015гг



2016-2018гг

ORIGINAL PAPER

PREVALENCE OF URINARY TRACT INFECTIONS ON PREGNANT WOMEN

ALYONA LAVRINENKO¹, YERBOL TISHKAMBAYEV¹, YEKATERINA SERBO¹, NATALIYA SHAMBELOVA¹, ILYA AZIZOV¹, TIM SANDLE², ATTILA GELLERT GYURKA³, ANTONELLA CHIESCÀ³

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

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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
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National Children's Hospital, Dong Da, Hanoi, Vietnam
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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 55% and 75% ($P > 0.05$). There is 100% sensitivity of the isolated strains in 2013 and 2014 to oxacillin, cefazolin and vancomycin; in year 2014 2.3% of strains were resistant to oxacillin and cefazolin. 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. MRS-resistant strains in the amount of 10% were isolated in 2013. And in year 2014 17.6% strains were resistant to linezolid 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

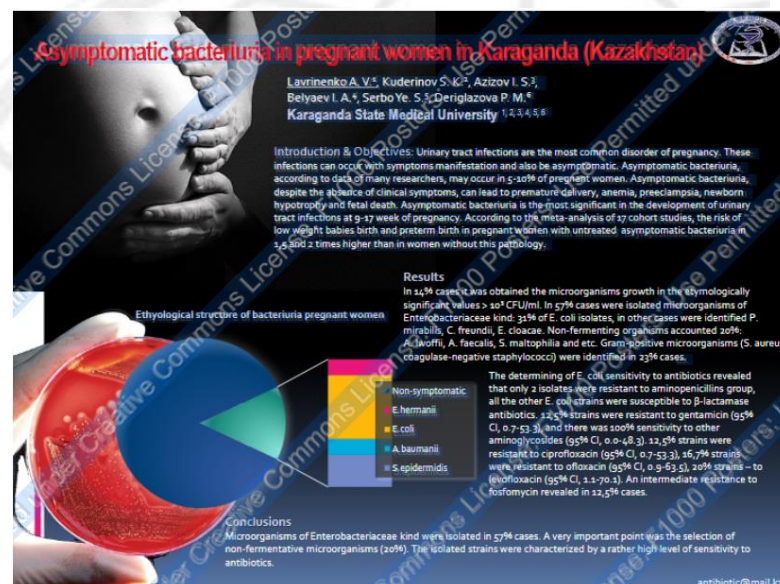
M2

Urinary tract infections in pregnancy women

Alyona Lavrinenko¹, Ilya Azizov¹, Yerbol Tishkambayev¹, Asylkhan Alibekov¹, Svetlana Kolesnichenko¹, Yekaterina Serbo¹
¹Karaganda State Medical University, Karaganda, Kazakhstan; ²Institute of Antimicrobial Chemotherapy, Smolensk, Russia

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Antimicrobial Resistance and Infection Control 2017, 6(Suppl 2):M2





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

EUCAST EUROPEAN COMMITTEE ON ANTIMICROBIAL SUSCEPTIBILITY TESTING
European Society of Clinical Microbiology and Infectious Diseases

search item

10 May 2016

The European Committee on Antimicrobial Susceptibility Testing - EUCAST

EUCAST is a standing committee jointly organized by ESCMID, ECDC and European national breakpoint committees. EUCAST was formed in 1997. It has been chaired by Ian Phillips (1997 - 2001), Gunnar Kahlmeter (2001 - 2012), Rafael Canton (2012 - 2016) and Christian Giske (2016 -). Its scientific secretary is Derek Brown (1997 - 2016) and John Turnidge (2016 -). Its webmaster is Gunnar Kahlmeter (2001 -). From 2016, Rafael Canton is the Clinical Data Co-ordinator and Gunnar Kahlmeter the Technical Data Co-ordinator.

EUCAST deals with breakpoints and technical aspects of phenotypic in vitro antimicrobial susceptibility testing and functions as the breakpoint committee of EMA and ECDC. EUCAST does not deal with antibiotic policies, surveillance or containment of resistance or infection control. The Steering Committee is the decision making body. It is supported by a General Committee with representatives from European and other countries, PESCI and ISC. The Steering Committee also consults on EUCAST proposals with experts within the fields of infectious diseases and microbiology, pharmaceutical companies and susceptibility testing device manufacturers.

EUCAST has several subcommittees - [see page Subcommittees](#).

Most antimicrobial MIC breakpoints in Europe have been harmonised by EUCAST. Breakpoints for new agents are set as part of the licensing process for new agents through EMA. EUCAST breakpoints are available in devices for automated susceptibility testing but with some limitations, depending on the system. A disk diffusion susceptibility test method [collaborated](#) to EUCAST MIC breakpoints is also available.

EUCAST invites anyone with an interest in antimicrobial agents in general and antimicrobial breakpoints in particular to contact EUCAST, ESCMID or one of the National Breakpoint Committees.

To cite the EUCAST website or a document on the EUCAST website: List the document name, version, year and the full web address. For example, if you want to refer to the current EUCAST breakpoint table, the citation reads The European

QUICK NAVIGATION

EUCAST News

- 15 Mar 2017: **China joins EUCAST**
- 13 Mar 2017: **Breakpoint table v 7.1 published**
- 13 Mar 2017: **Coagulase negative staphylococci MIC vs. zone diameters uploaded**
- 09 Mar 2017: **Consultation (9 March - 14 May) on MIC distributions and ECOFFs**
- 03 Mar 2017: **New and updated MIC vs. zone diameter files**

[About Newsfeeds](#)

ESCMID EUROPEAN SOCIETY OF CLINICAL MICROBIOLOGY AND INFECTIOUS DISEASES

EUROPEAN MEDICINE AGENCY EUROPEAN MEDICINES AGENCY

ecdc

[Website changes](#)



Приглашаем к сотрудничеству!



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