

HE Antimicrobial Resistance and Infection Control Team

Are we winning or losing
September 2019

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Seitheirte Sláinte | Building a Better Health Service
Níon Fáilín & Fúilín

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The Most Important Thing About Infection Prevention and Control

Supporting the best possible access to care with the lowest risk of infection or colonization with drug resistant bacteria

Denying access to care is bad infection prevention and control

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The Most Important Thing About Antimicrobial Stewardship

Protecting patients from antibiotics

NOT

Protecting antibiotics from patients

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Are we winning of losing ?
We might be goal up at half time but this game is never over (and the bugs have a huge bench of substitutes)



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What I Will Talk About

Progress Antimicrobial Resistance and Infection Control

Capacity
Structures
Key Performance Indicators (KPI's)

Update on Carbapenemase Producing Enterobacterales (CPE)

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Better Capacity for IPC and AMS in HSE

Building Capacity in HSE
87 new posts for AMRIC since start of 2018

Community
IPC DON & 9 ADON
AMS Pharmacist Chie & 9 Senior Pharmacists

Acute Operations
27 Medical scientists
Plus IPCN's, AMS Pharmacists, Medical Scientists, Admin Officers, Surveillance Scientists, Consultant

AMRIC Division of HPSC
Consultant, GP, Surveillance scientist, epidemiologist, project manager

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Better Structures in HSE

Making Things Happen - National
 AMRIC Division of HPSC – clinical expertise & surveillance
 Performance monitoring – Business Intelligence Unit
 Getting Things Done – HSE AMRIC Implementation Team
 Authority to do things- HSE AMRIC Oversight Team

Hospital Group & CHO
 IPC Committees

National Support - Where to go with questions ?
 "One stop shop" AMRIC Division of HPSC

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Are We Making Things Better For Patients ?

Key Performance Indicators

Hospital acquired *S. aureus* blood stream infection

National Target is to keep less that 1 per 10 000 bed days

Rate generally less that 1 / 10 000 bed days

But stable

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Are We Making Things Better For Patients ?

Key Performance Indicators

Hospital acquired *S. aureus* blood stream infection

National Target is to keep less that 1 per 10 000 bed days

Rate generally less that 1 / 10 000 bed days

But stable and why ?

Intravascular devices are a big part of the problem

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Are We Making Things Better For Patients ?

Key Performance Indicators

Hospital acquired *C. difficile* Infection (CDI)

National Target is to keep less that 2 per 10 000 bed days

Rate generally above 2 and has exceeded 3 in 2 of 3 recent months

Why ?
 Antimicrobial use is a big factor
 Person-to-person spread in hospital is at least part of the problem
 (probably quite significant also)

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Are We Making Things Better For Patients ?

Key Performance Indicators

Carbapenemase Producing Enterobacterales (CPE) related KPIs

CPE screening – more than 27 000 CPE screens performed in July 2019 (about 10 000 per month start of 2018)

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Are We Making Things Better For Patients ?

Key Performance Indicators New CPE Detection – levelling off (with increased screening)

Number of newly detected patients with CPE by HCPEU per week

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Are We Making Things Better For Patients ?

Acquiring CPE in Hospital

Person to person spread (direct & indirect)
Finding people who are positive, appropriate placement and precautions

Environment
Reservoirs in the hospital environment (coming up out of the drains)

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Are We Making Things Better For Patients ?

CPE Control is better but there is a lot to do

Hospital acquired *S. aureus* blood stream infection – stable but we need to make it better

Hospital acquired *C. difficile* infection – rates persistently above target and have increased this year – a lot to do on infection control and stewardship

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Recognising the successes as well as monitoring what goes wrong

We estimate that about 650 to 700 people will get CPE in hospitals in Ireland this year – **tens of thousands will not** – because IPC works

We estimate that about 350 people will get *S. aureus* blood stream infection in HSE hospitals this year – **tens of thousands will not** – because IPC works

We estimated that 700-1000 people will get *C. difficile* infection in HSE hospitals this year – **tens of thousands will not** – because IPC and AMS works

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One of the biggest challenges for people working in IPC & AMS

When it works best it looks like nothing happened

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Shattering the Illusion that Safe Care Just Happens

Hospitals are High Risk Environments for Patients

Do they know ? Do we tell them ?

www.hse.ie/infectioncontrol

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A little history – “the good old days”

Vienna 1846 1 in 5 women delivered in the lying in hospital died of puerperal sepsis

(Group A Streptococcus /*S. pyogenes*)

Enter - Dr. Semmelweiss

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A little history – moving on 140 years

Galway 1986 – The new (and very nervous) Dr. Cormican

A lot of the “then” in patients would probably be today's out patients

A lot of “today's” in patients would probably already be deceased in 1986

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A little history – moving on 140 years

Galway 1986 – The new (and very nervous) Dr. Cormican

The only antibiotic resistant bug I knew about at all was MRSA

No CPE, No ESBL, No VRE, No *C. auris*, No MDRO Acinetobacter

For antibiotics we mostly used ampicillin, co-amoxiclav, cefuroxime
gentamicin and metronidazole

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A little geography – “far away hills”

Greece now : more that 50% of *Klebsiella pneumoniae* blood stream infections are CPE

Italy now: more that 25% of *Klebsiella pneumoniae* blood stream infections are CPE

Outside of Europe: many countries with little or no good information but we find drug resistant bacteria in very high proportion of patients transferred back

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Healthcare 2019 – IPC has never been harder to assure

Hospital Patients have never been so vulnerable

There have never been so much intercountry movement for healthcare (medical tourism and repatriation)

There have never been so many drug resistant bacteria

There have never been less new antibiotics

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Healthcare 2019 – The Work You Do

Protects most patients from healthcare associated infection

Protects most hospital patients from colonization with CPE and many other MDRO's

Helps to keep the antibiotics we have working

Is critical to sustainability of safe healthcare services

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Thank You

for keeping the ship of healthcare afloat

I am likely to need that
ship more in the future than in the past

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