

IACS

DA GESTÃO À
PRÁTICA CLÍNICA

I^{as} JORNADAS DE CONTROLO DE INFEÇÃO
DO CENTRO HOSPITALAR DO PORTO



MOSAR - ICU **(Mastering Hospital Antimicrobial Resistance in Europe)**

ucip

centro hospitalar
do Porto



Irene Aragão
UCIP – Hospital Santo António



Projecto Integrado Europeu

MOSAR aims to significantly advance our knowledge regarding the control of antimicrobial resistance of bacteria responsible for major and emerging nosocomial infections.

Main Objectives:

- 1. Contribution to standards*
- 2. Development of innovative tools*
- 3. Education and training*

1. Contribution to standards

Using a **multi-centre, multinational design** for controlled studies.

These **studies will provide standards** and guidance on which to base interventions to combat antimicrobial resistance in individual countries and across Europe.

2. Development of innovative tools

Innovative tools will be designed and validated for:

- ✓ **rapid molecular-based diagnostics** of colonization by AMR bacteria,
- ✓ **detection of the risk of transmission associated with contact** between patients and personnel and patient-to-patient within the hospital and the community,
- ✓ and **real-time analysis** of factors associated with the emergence and spread of AMR in healthcare facilities.

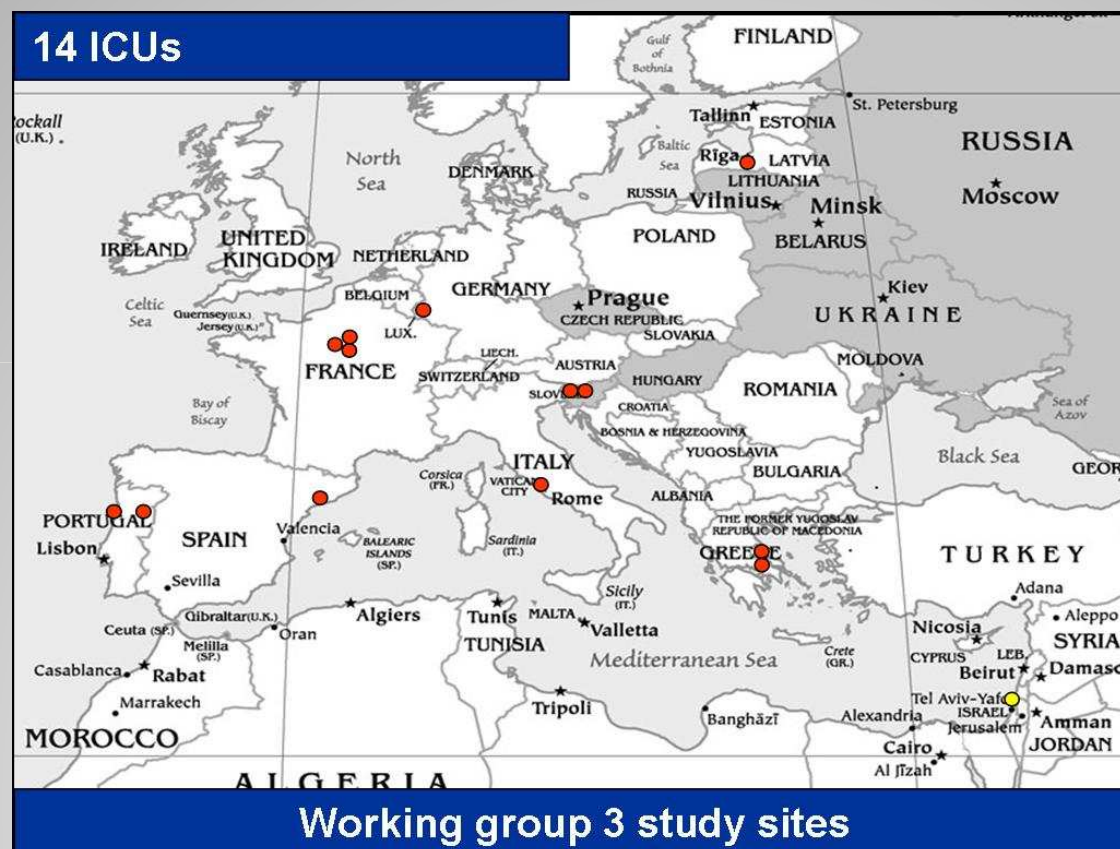


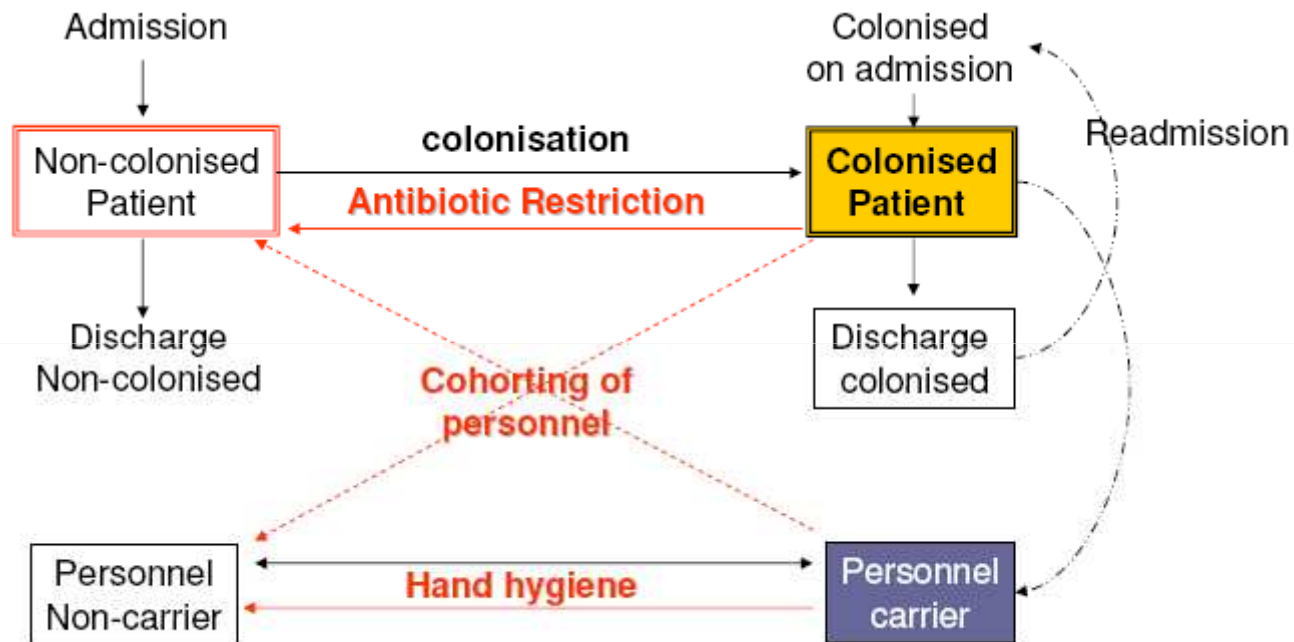
3. Education and training

To bring public awareness and **professional training** is a first and major step toward realizing **the behavioural and organizational changes** leading to the control of AMRB.

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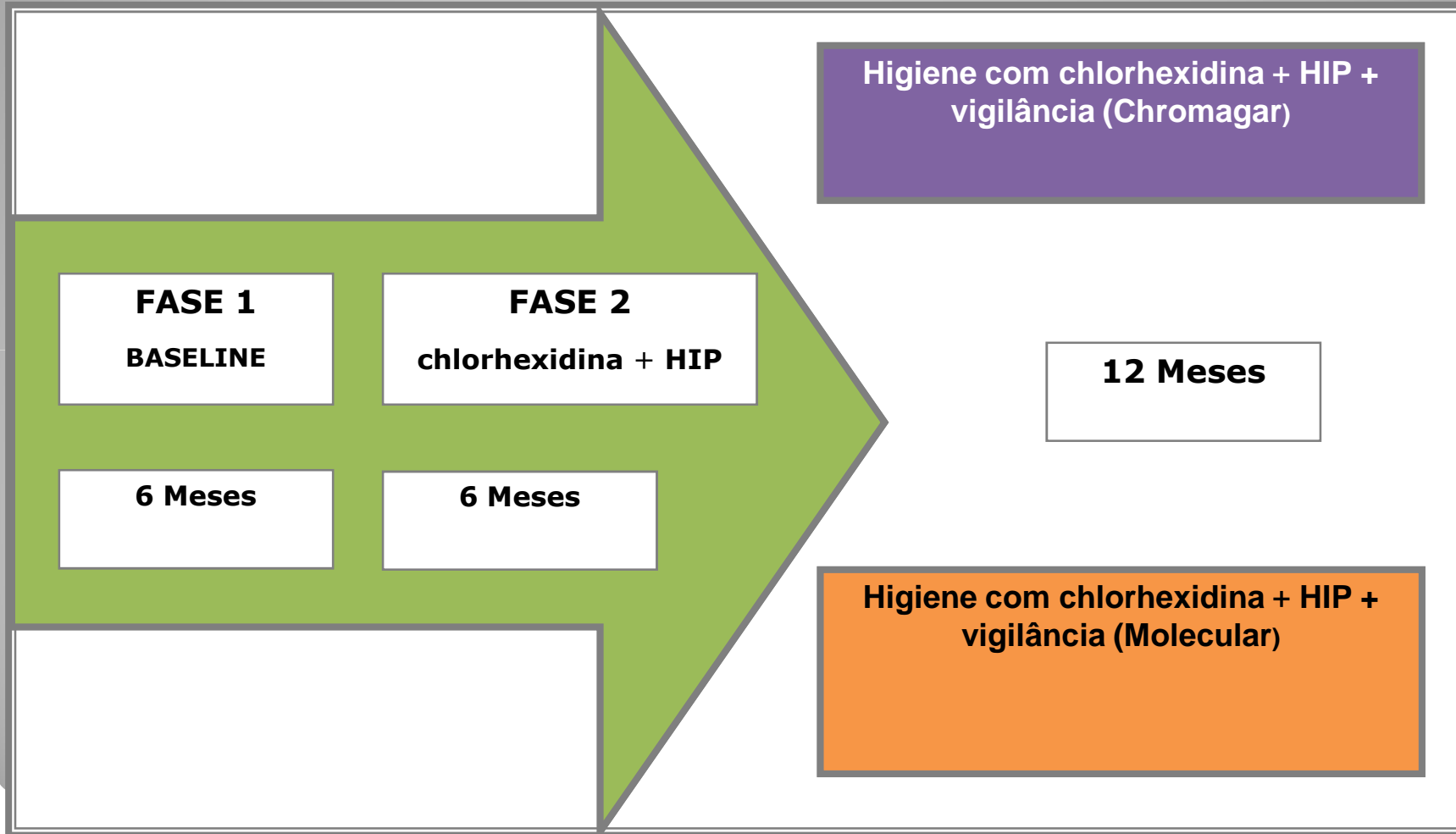




Austin et al, *PNAS* 1999

Objectivos:

- **Detectar precocemente e isolar de portadores de MRSA, VRE ou ESBL nas UCI's usando testes rápidos de diagnóstico** (agar cromogénico e testes moleculares);
- **Realçar as medidas básicas de controlo de infecção**, centralizadas na higienização das mãos dos profissionais de saúde;
- **Perceber o valor do isolamento na prevenção da disseminação** dos micróbios multirresistentes;
- **Perceber o valor da descontaminação cutânea** com chlorhexidina na higiene diária dos doentes;





Mixed Intensive Care Unit

12 beds with artificial ventilation

- 4 Individual rooms (2 with negative pressure)

Emergency care:

- Emergency room
- In Hospital Medical Emergency Team

Training program in:

- BLS, ALS, Emergency medicine, trauma, sepsis.



Porto MOSAR WP3 team



Irene Aragão
Anaesthesiologist Consultant
UCIP Director



Márcio Reis
Medical Surgical Specialist
ICU Nurse



Virginia Lopes
Microbiologist
Medical Doctor



Ernestina Aires
Rehabilitation Specialist
Infection Control
Commission Chief Nurse

Porto MOSAR WP3 project



PHASE1 BASELINE

start: **12-05-2008**
Finish: **01-01-2009**
8 months

PHASE2 CHX+ HIP

Start: **02-01-2009**
Finish: **26-07-2009**
7 months

CHX +HIP + lab (chromogar)

Since: **27-07-2009**
6 months



FASE 1: Observacional

- 230 doentes incluídos,
- Realizadas cerca de 550 zaragatoas
 - ✓ nasal, rectal e feridas se houver
 - ✓ à admissão e 2ª e 5ª
- Realizadas 123 observações



Auditoria Interna

- Quantificação da performance da higiene das mãos;
- Resultados após 123 observações :
baseline (01.07.2008 – 18.12.2008)

Intervenções / Oportunidades X 100 = Compliance %

$$382 / 914 \times 100 = \mathbf{42 \%}$$

FASE 2

- Incluiu as intervenções da fase 1
(Observações, zaragatoas)
- Implementação do programa da OMS (Formação)
“Clean Safer is Safer Care”
- Prestação dos cuidados de higiene com chlorhexidina
(revisão do protocolo do banho)

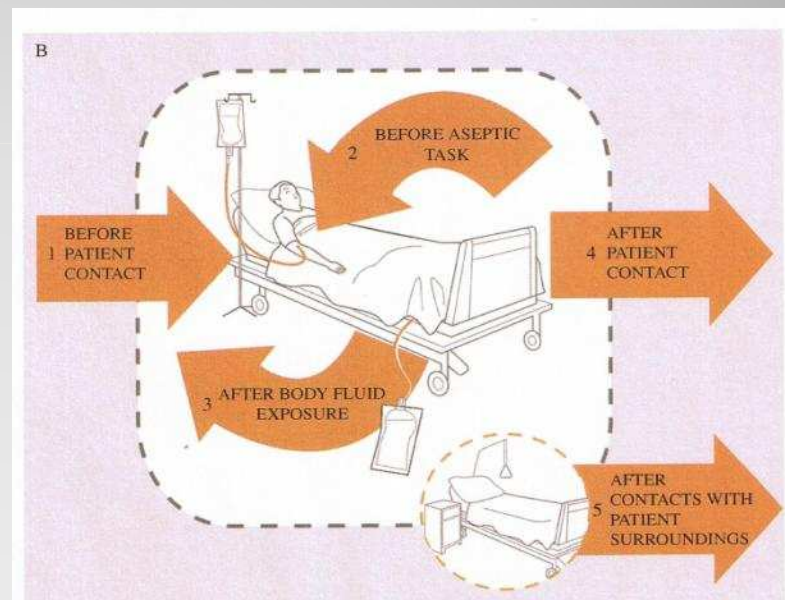
Hand Hygiene Observation Form

Date (dd/mm/yyyy): ____/____/____
Start time (hh:mm): ____:____
End time (hh:mm): ____:____

Observer (initials): ____
Bedspace: ____

Professional 1			Professional 2			Professional 3			Professional 4		
<input type="checkbox"/> Medical doctor <input type="checkbox"/> Nurse <input type="checkbox"/> Auxiliary <input type="checkbox"/> Other HCW			<input type="checkbox"/> Medical doctor <input type="checkbox"/> Nurse <input type="checkbox"/> Auxiliary <input type="checkbox"/> Other HCW			<input type="checkbox"/> Medical doctor <input type="checkbox"/> Nurse <input type="checkbox"/> Auxiliary <input type="checkbox"/> Other HCW			<input type="checkbox"/> Medical doctor <input type="checkbox"/> Nurse <input type="checkbox"/> Auxiliary <input type="checkbox"/> Other HCW		
Opp	Indication	Action	Opp	Indication	Action	Opp	Indication	Action	Opp	Indication	Action
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Clean Safer, is Safer Care



HIGIENE CORPORAL COM CHLORHEXIDINA

O QUE É?

Prestação dos cuidados de higiene (banho) aos doentes internados na UCIP, com **digluconato de chlorhexidina a 4%** - formulação em sabão (**Lifo-Scrub**) durante a II e III fase do estudo MOSAR.

QUEM E QUANDO?

Todos os doentes internados e admitidos na UCIP a partir do dia **2 de Janeiro de 2009** e durante todo o tempo de internamento excepto se existir alguma contra-indicação.

CONTRA-INDICAÇÕES:

Doentes com queimaduras

Doentes alérgicos á chlorhexidina

Doentes com lesões extensas da pele

Doentes alérgicos a um dos componentes do produto usado (Lifo-Scrub)

HIGIENE CORPORAL COM CHLORHEXIDINA

PREPARAÇÃO DA SOLUÇÃO DE BANHO:

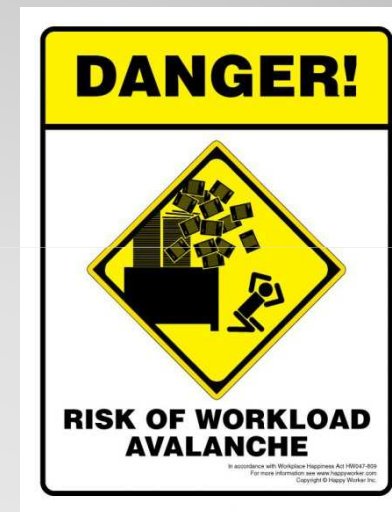
- **60ml** (Pressionar 25X o doseador) de sabão de chlorhexidina, sem diluir em aproximadamente **5 esponjas** de banho (molhadas).

TÉCNICA DE BANHO:

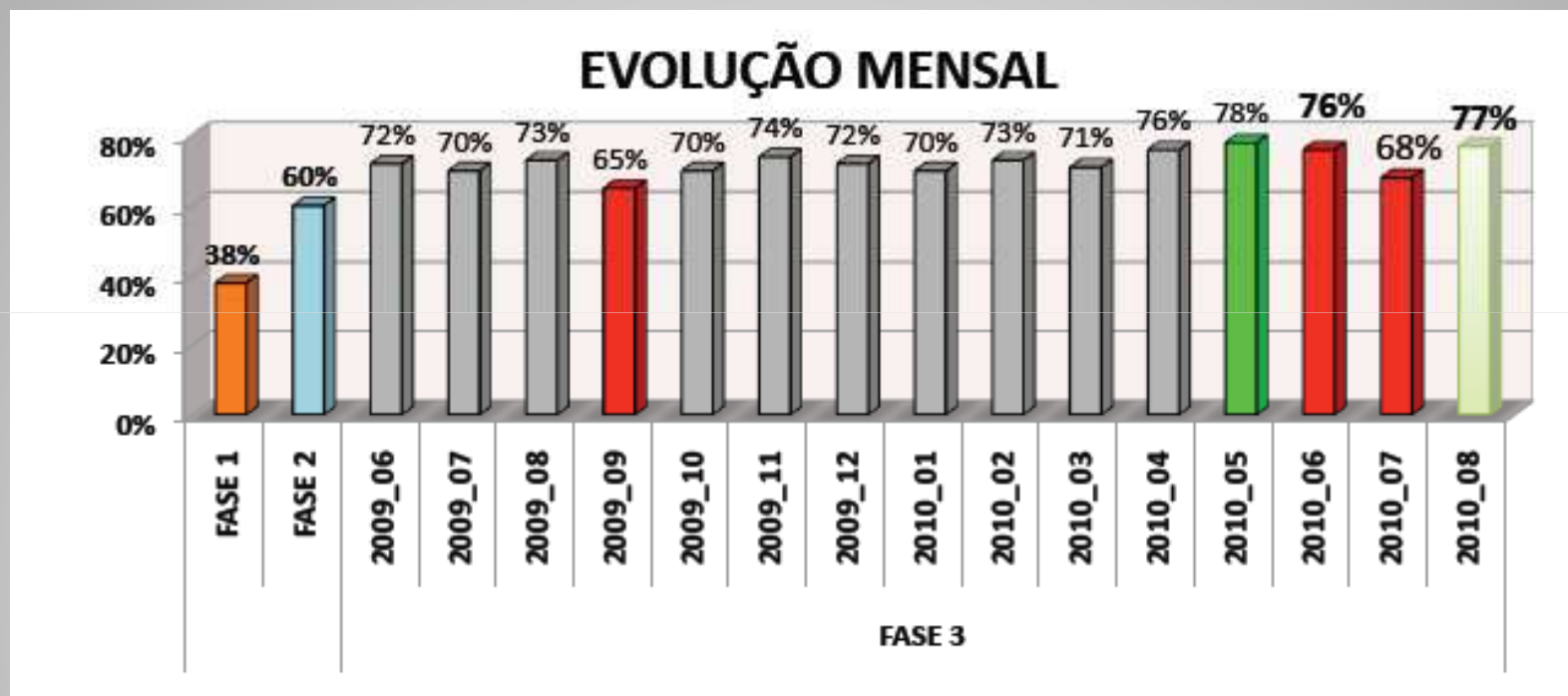
- Lavar a **face e o pescoço** do doente só com **água tépida**;
- Lavar **mucosas e pele** lesada só com **água tépida**;
- Lavar com **sabão normal (Softskin)** as mucosas **visivelmente sujas**
- Usar inicialmente água tépida sem chlorhexidina para remoção da sujidade (Ex: dejectões) e depois utilizar o sabão de chlorhexidina;
- Lavar os **braços, tórax, abdómen, costas e pernas** com o sabão de **chlorhexidina** de acordo com o procedimento habitual;
- **Enxaguar** o doente com **água tépida**, após a utilização do sabão de chlorhexidina;
- **Aplicar** loção/creme hidratante após o banho (**Dermisol**);

Porto MOSAR WP3 (December 2009)

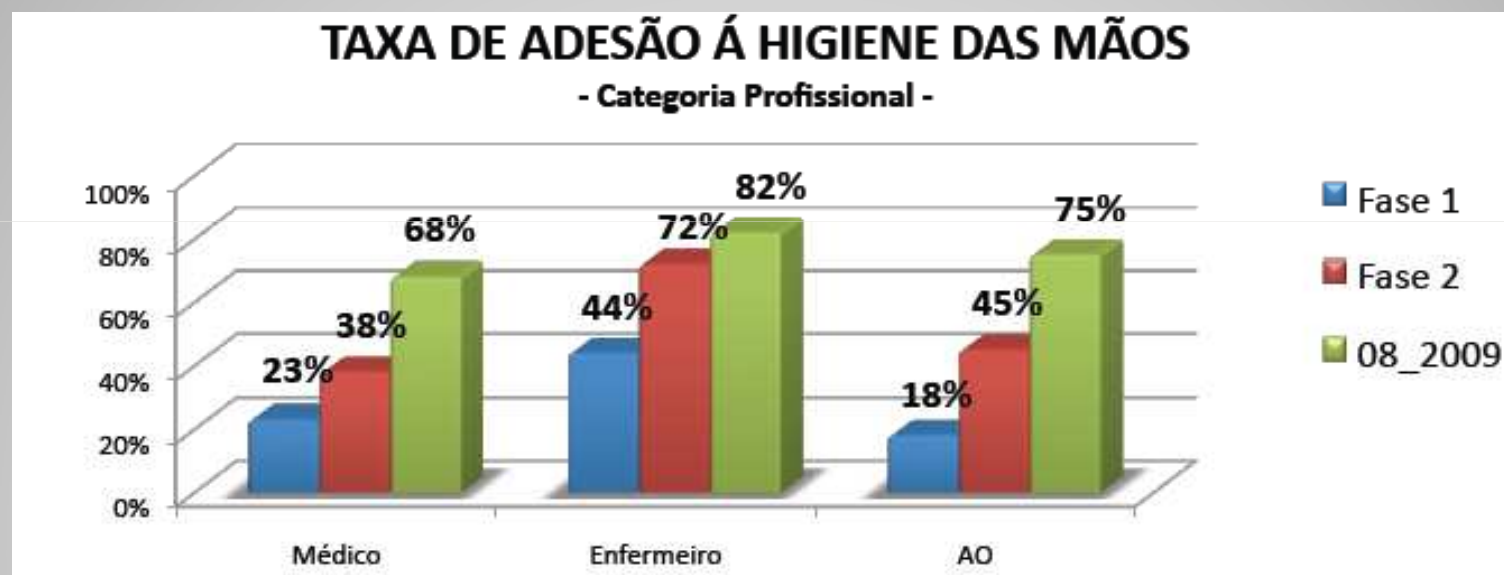
- Patients admitted - 610
 - Long stay patients - 498
 - Short stay patients - 112
- Hand Hygiene Observation - 313
- Point Prevalence - 83
- Swabs – about 2500
- Strains identify -117



Compliance da Higiene das mãos



Compliance da Higiene das mãos



Resultados preliminares da UCIP



- Phase 1
- Phase 2
- Phase 3 - 3 months

Resultados promissores?

Falta análise global

Obrigada a toda a equipa da UCIP por estes resultados!

Surveys/ Research Online

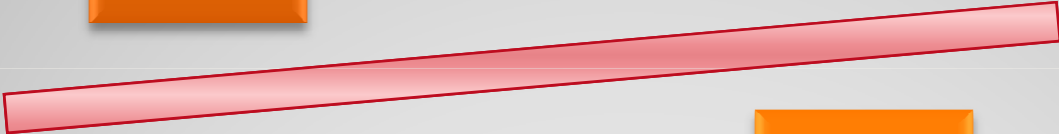


Good points

- Last hand hygiene survey
- Web design
- Project library



Points to improve

- 
- More than one question in each page
 - Disruption forum
 - Website speed
 - More complete data reports

Hand Hygiene Observations

**Good
points**

- Helpful to achieve a good compliance rate
- Helpful to notice other problematic issues
ex: Patient environment, work methodology

- Observer effect
- Compliance rate

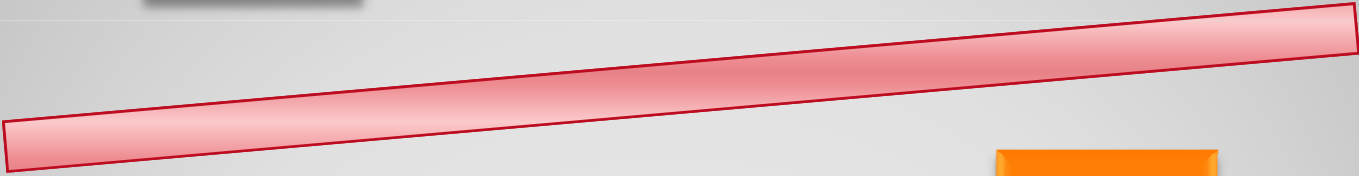
**Points
to
improve**

Laboratory



Good points

- Procedures easy to perform
- Positive samples are less in the third phase



- Reading problems (VRE, few colonies and inconstant)

- Time consuming in lab procedures and manual registration data but it is essential for controlling many samples and results



Points to improve

Hospital Santo Antonio - UCIP

- What you would do different next time?
 - Excel Microbiology database
- What did you do very well?
 - Team commitment
 - Communication between lab and ICU
 - Isolation procedure

Future

- What should be stopped/changed?
 - Sending strains at the end of each phase
 - Detail up-to-date at the end of each phase
 - Opportunity for each site to retrieve more data from the research online
- Tips from your site
 - A effective communication process between the investigators and the staff (ICU and LAB)
 - Involve all the staff in the changing process
 - Don't accumulate to much work (data) to introduce in the research online