



Nelson Mandela  
**Children's  
Hospital**

A family dedicated to care

# MDRO and CRE Management – Risk Identification in Health Care

# INTRODUCTION

- Multi drug resistant organisms(MDRO), in particular Carbapenem Resistant Enterobacteriaceae/ Carbapenamase enzyme producing (CRE/CPE) infections and colonisations, have not been given much attention in paediatric and neonatal population in general.
- South Africa accepts people from around the world with open arms, thus making it vulnerable to CRE/CPE transmission.
- With the emerging threat of antibiotic resistance and outbreak due to transmission of resistance, it is vital to detect it early and manage.

European Centre for Disease Prevention and Control. Risk assessment on the spread of carbapenamase-producing Enterobacteriaceae (CPE) through patient transfer between healthcare facilities, with special emphasis on cross-border transfer. Stockholm: ECDC; 2011.

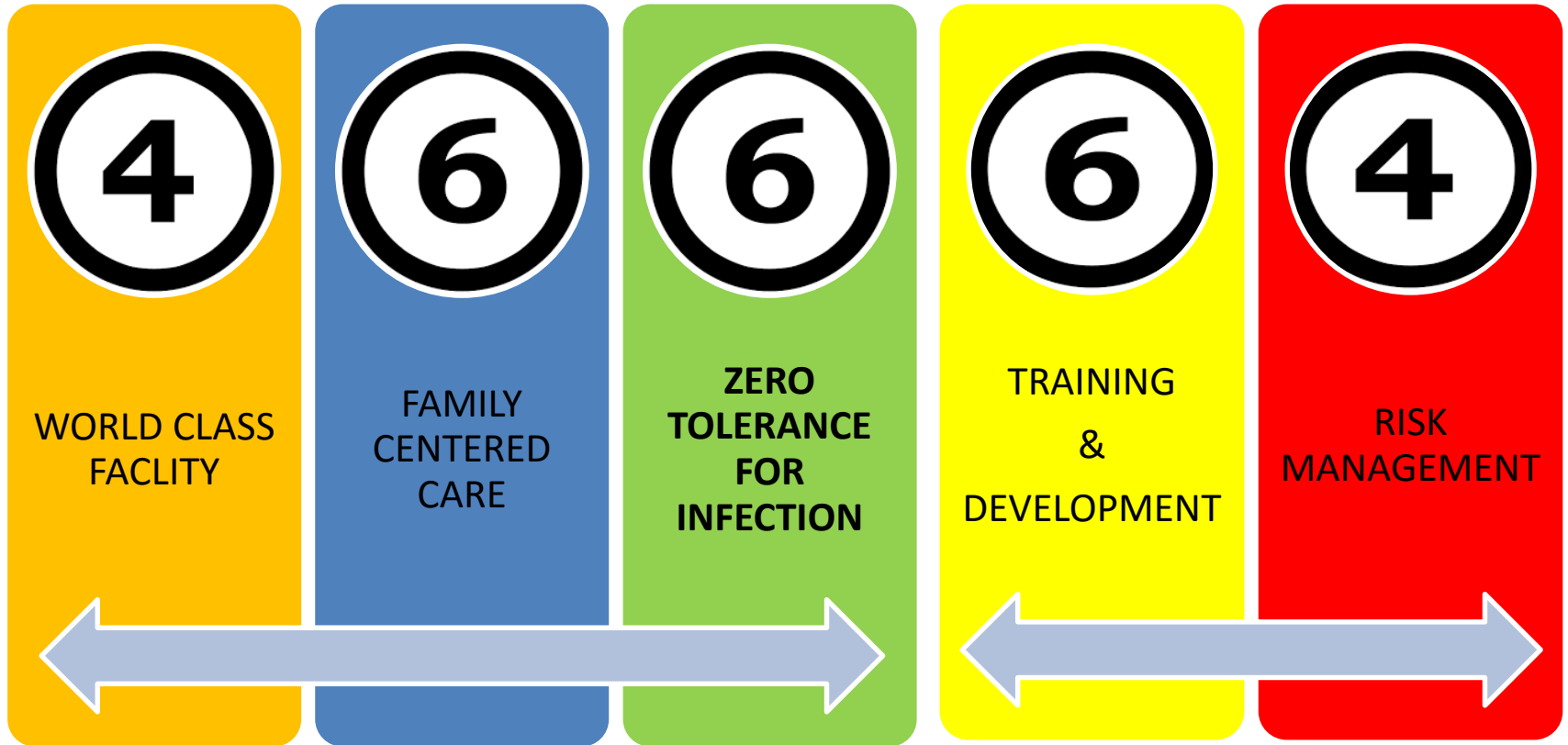


# APPROACH

- Nelson Mandela Children's Hospital (NMCH) is a 200 bedded facility which function as a referral hospital accepting patients from different health care facilities.
- Adherence to infection prevention principles is unknown to NMCH so we treat all patient as high risk patients.
- Early detection of resistance pattern with the emphasis of IPC principle and practices is the key to improve quality care; reduce length of stay and decrease the burden of antibiotic resistance.



# Nursing Strategy



## Nursing Strategy Continued



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**Zero  
Tolerance  
for Infection**



- HAI Rate
- Hand Hygiene
- **Best Care Always Bundle**
  - VAP
  - CLABSI
  - CAUTI
  - SSI
- **Audits**
  - Contractor Compliance
- Infection Control Committee
- Bluebird

## IMPORTANCE OF RISK IDENTIFICATION

- ECDC 2011 Technical report focuses on Risk Assessment to prevent the risk of spread of CRE/CPE through patient transfer between health care facilities and cross-border transfer.
- There is strong evidence that cross-border and health care facility transfer is associated with a risk of CRE/CPE transmission.
- Taking into account ECDC systemic review of risk assessment and to preserve the available resources of paediatric health care, NMCH has designed a risk assessment criteria.
- As a referral hospital, we aim to ensure patient and staff safety by implementing effective IPC measures and screening.

European Centre for Disease Prevention and Control. Rapid risk assessment: Carbapenem-resistant Enterobacteriaceae – 8 April 2016. Stockholm: ECDC; 2016.

European Centre for Disease Prevention and Control. Risk assessment on the spread of carbapenemase-producing Enterobacteriaceae (CPE) through patient transfer between healthcare facilities, with special emphasis on cross-border transfer. Stockholm: ECDC; 2011.



# Risk Assessment Document

## IPC ADMISSION RISK ASSESSMENT TOOL

Complete the whole questionnaire to assess and determine infectious diseases precautions for every patient at time of admission.

Date: -----

No.	Statements	Yes	No
	<p><b>HIGH RISK ALERT:</b></p> <ul style="list-style-type: none"> <li>Has the ill child travelled or in contact with anyone travelled to Liberia, Guinea Democratic Republic of Congo within the past six months?</li> </ul> <p>If <b>YES</b>, inform the IPC/ Manager on call.</p>		
	<p><b>HIGH RISK ALERT:</b></p> <p>Has the child had <b>ANY</b> of the following symptoms in the <b>PAST 2 DAYS</b>?</p> <ul style="list-style-type: none"> <li>Fever,</li> <li>cough,</li> <li>shortness of breath,</li> <li>runny nose or</li> <li>Rashes</li> </ul> <p>If <b>YES</b>, consider <b>Droplet or Airborne</b> precautions.</p>		
	<p><b>HIGH RISK ALERT:</b></p> <p>Has the child had <b>ANY</b> of the following symptoms <b>in the PAST 5 DAYS</b>?</p> <ul style="list-style-type: none"> <li>Diarrhoea</li> <li>Vomiting</li> </ul> <p>If <b>YES</b>, consider <b>Contact</b> precautions.</p>		
	<p><b>HIGH RISK ALERT:</b></p> <p>Has the child being <b>Diagnosed</b> with the following <b>Previously</b>:</p> <ul style="list-style-type: none"> <li>VRE(Vancomycin resistant enterococci)</li> <li>MRSA(methicillin resistant staphylococcus aureus)</li> <li>CRE(Carbapenem resistant Enterobacteriaceae)</li> </ul> <p>If <b>YES</b>, consider <b>Contact</b> precautions.</p>		
	<p><b>In the last 3 weeks, has your child been exposed to or diagnosed with:</b></p> <ul style="list-style-type: none"> <li>Chickenpox</li> <li>Measles</li> <li>TB</li> </ul> <p>If <b>YES</b>, consider <b>Airborne</b> precautions.</p>		
	<p><b>Has the child been admitted for (&gt;24 hours) at any healthcare facility outside of NMCH in the past 2 year?</b></p> <ul style="list-style-type: none"> <li>If <b>YES</b> what was the diagnosis?</li> <li>Consider <b>Contact</b> precautions and isolate</li> </ul>		

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

<https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html>

# CONTACT PRECAUTION

Has the child had ANY of the following symptoms in the PAST 5 DAYS?

- Diarrhea
- Vomiting
- Has the child being Diagnosed with the following Previously:
  - VRE(Vancomycin resistant enterococci)
  - MRSA(Methicillin resistant staphylococcus aureus)
- CRE(Carbapenem resistant Enterobacteriaceae)
- If YES, consider Contact precautions.
- Has the child been admitted for (>24 hours) at any healthcare facility outside of NMCH in the past 2 year?
- If YES what was the diagnosis?
- Consider Contact precautions and isolate and screen the patient for the following:
  - MRSA
  - CRE

CONTACT  
PRECAUTIONS



APRON



GLOVES

BEFORE ENTERING



STOP





# DROPLET PRECAUTION

Has the child had ANY of the following symptoms in the PAST 2 DAYS?

- Fever,
- Cough,
- Shortness of breath,
- Runny nose or
- Rashes

If YES, consider Droplet or Airborne precautions.



# AIRBORNE PRECAUTION

In the last 3 weeks, has your child been exposed to or diagnosed with:

- Chickenpox
- Measles
- TB

If YES, consider Airborne precautions.

## AIRBORNE PRECAUTIONS





“It always seems impossible until it is done.”  
– Nelson Mandela

