# RAJIV GANDHI GOVT. WOMEN & CHILDREN HOSPITAL PUDUCHERRY



# ANTIBIOTIC POLICY 2017

**Department of Microbiology** RGGW&CH Ellaipillaichavady Puducherry

#### GUIDELINES FOR ANTIMICROBIAL THERAPY

#### VALID TILL MAY 2018

#### FOR INTERNAL USE ONLY

This manual provides general guidelines in choosing the antibiotics and is based on National Guidelines for Antimicrobial Use and local antibiogram.

We believe, with these guidelines, it will be possible to maintain good patient care and can prevent Hospital Acquired Infections due to irrational use of antibiotics.

These guidelines are flexible and the choice can be changed in case of hypersensitivity and drug intolerance and based on clinical conditions.

We thank our Medical Superintendent who played an important role in initiating Hospital Infection Control Committee in our Hospital and for guidance in preparing Antibiotic Policy.

We thank all Chiefs, Specialists & Senior Doctors of Department of Obstetrics & Gynaecology and Department of Paediatric for providing their input in making this policy Booklet

We also thank our Department of Microbiology who helped in preparing statistical data on antibiogram of various species isolated in our Hospital.

THE CURRENT POLICY WILL BE VALID TILL MAY 2018 AND WILL BE UPDATED ON ANNUAL BASIS

# **Contents:**

S.No	Index	Page no
1.	Hand hygiene	4
2.	Obstetrics & Gynecology	5
3	Anti-microbial prophylaxis	8
4	Paediatric infections	12
5	Neonatal Intensive Care Unit	16
6	Treatment protocol for VDRL+ve	17
	babies	
7	Treatment of multi drug resistant	18
	pathogens	
8	Antibiogram	21
8	References	22
9	Blood & body fluid spill management	24
10	Mercury spill management	25
11	Aseptic measures in labour room	26
12	Infection control in operation theatre	27
13	Prevention of sharp injuries	28
14	Prevention of urinary tract infection	29
15	Prevention of catheter related blood	30
	stream infections	
16	Prevention of ventilator associated	31
	pneumonia	
17	Prevention of surgical site infections	32

# **Hand Washing Steps**



Rub palms together.



Rub the back of both hands.



Interlace fingers and rub hands together.



Interlock fingers and rub the back of fingers of both hands



Rub thumb in a rotating manner followed by the area between index finger and thumb for both hands.



Rub fingertips on palm for both hands.



Rub both wrists in a rotating manner. Rinse and dry thoroughly.

# **Obstetrics & Gynaecological Infections**

Flouroquinolones –Contraindicated in 1st Trimester

Co-trimoxazole-contraindicated in 1st Trimester

Doxycycline-not recommended in nursing mothers

#### Asymptomatic Bacteriuria

Not to be treated except pregnant women & immunocompromised patients

Definition:sample with >1,00,000 cfu/ml of bacteria of same species in 2 urine cultures obtained 2-7 days apart.

Treat as per sensitivity reports.

Presumptive Antibiotics:

Nitrofurantoin 100mg BD-7 days

or

Amoxicillin 500mg tds-7 days

Alternate treatment: Cephalexin 500mg tds-7 days

Cefixime200mg Bd-7 days

#### **Acute Uncomplicated Cystitis**

Nitrofurantoin 100mg BD-7 days

Ciprofloxacin 500mg BD-5 days

Cefuroxime 250mg BD-5 days

Cefixime 200mg-7 days

Send appropriate samples to Microbiology Laboratory before starting antibiotics Escalate or De-escalate antibiotics according to sensitivity pattern

#### **Acute Uncomplicated Pyelonephritis**

Diagnosis

Symptoms of UTI

Fever >38°C

Lumbar pain

Urine culture->10<sup>5</sup>cfu/ml

Mild-Ceftriaxone 1gm IV BD-7 days in combination with Amikacin 15mg/kgIV Q 24hrs-7 days or Gentamicin 7mg/kg/day OD-7days(Monitor renal function closely)

Severe-14 days

Alternate-Piperacillin Tazobactam 4.5 gm IV 6<sup>th</sup> hrly or Cefaperazone Sulbactam 3gm IV 12<sup>th</sup> hrly

#### **Complicated Pyelonephritis**

Piperacillin Tazobactam 4.5 gmIV 6<sup>th</sup> hrly with Amikacin 1gm IV OD

Or

Cefaperazone sulbactam 3gm IV 12th hrly

Alternate – Meropenam or Imipenam 1gm IV 8<sup>th</sup> hrly

**Asymptomatic UTI** (Group B streptococcal disease-IV Penicillin G 5 million units(Loading dose)followed by 2.5-3 MU IV Qid

Or

Ampicillin 2gm IV followed by 1gm

Send appropriate samples to Microbiology Laboratory before starting antibiotics Escalate or De-escalate antibiotics according to sensitivity pattern

#### **Obstetric Sepsis During Pregnancy**

Send blood cultures before starting antibiotics

Patient in shock-Piperacillin Tazobactam or cefaperazone sulbactam

No features of severe sepsis-Ceftriaxone 2gm IV OD with Metronidazole 500 mg IV Tds with

Gentamicin 7mg/kg OD

#### Chorioamnionitis

IV Ampicillin

Severe sepsis-Cefoperazone sulbactam with Vancomycin

#### **Septic Abortion**

Ampicillin 500mg Qid with Metronidazole 500 mg IV Tds Severe sepsis-send Blood cultures and start Piperacillin Tazobactam or Cefoperazone sulbactam

Send appropriate samples to Microbiology Laboratory before starting antibiotics Escalate or De-escalate antibiotics according to sensitivity pattern

#### **Surgical Antimicrobial Prophylaxis**

Inj.Cefotaxime1-2gm IV stat within 30-45 mins before the surgical incision and repeat dose after 12 hrs.

Continue antibiotics if, Prolonged surgery >3hrs
Blood loss>1500ml
BMI>35

#### Vaginal Delivery:

Antibiotics not routinely recommended

Third or Fourth degree perineal tear-IV Cefotaxime with Metronidazole 500 md IV

#### **Cervical Encirclage**

Ampicillin 2gm IV single dose

#### **Induced Abortion**

Doxycycline 100 mg BD-7 days with Metronidazole 400 mg Tds

First dose to be started prior to procedure

#### Hysterosalphingogram

Doxycycline 100 mg BD -5 days

#### **Gynaecological Surgery**

Inj.Cefotaxime1-2gm IV stat within 30-45 mins before the surgical incision and repeat dose after 12 hrs.

Continue antibiotics if, Prolonged surgery >3hrs

Blood loss>1500

BMI>35

Oral Metronidazole BD-7 days-prevent post operative vaginal cuff infection

#### **Antibiotics During Labour**

PROM-If membranes are intact-No Antibiotics

If membranes not intact-Inj Ampicillin 1gm IV BD

#### Infective Endocarditis Prophylaxis

Oral Amoxycillin 2 gm

Inj. Ampicillin 2gm IV 1hr before procedure

#### **Prevention of Surgical Site Infection**

Classes of wound

Class-I: clean wound: An uninfected operative wound in which no inflammation is encountered, primarily closed

Class-II: An operative wound in which the respiratory, alimentary, genital or urinary tracts are entered under controlled conditions, no contamination encountered

AMP recommended in class-I and class-II

#### **Pre-Operative Care**

- 1. Pre-operative showering of patients with antiseptic soaps
- 2. Surgical scrubbing-All the steps of Hand washing with alcohol or iodine compounds should be done
- 3. Clean and proper surgical attire
- 4. Pre-operative Hair removal-Depilatory agents should be used
- 5. Management of infected surgical personnel

#### **Intra Operative**

- 1. Proper ventilation
- 2. Anaesthetists should also abide the principles of asepsis
- 3. Skin preparation in concentric circles from the area of proposed incision
- 4. Minimize persons inside OT
- 5. Minimal Handling of Tissues and maintain Haemostasis
- 6. Assembly of Equipments and solutions and injections long before procedures should not be done

#### **Post-Operative Care**

- 1. Saline dressing-48 hrs
- 2. No Topical Antibiotics in clean wounds
- 3. Minor infection-drainage of pus(removal of sutures)
- 4. Localised infection with minimal systemic findings

Inj.Cefotaxime 1gm IV 8<sup>th</sup> hrly or Ceftriaxone 2gm IV Od followed by 1gm every 24

hrs

5. Clean -contaminated wound

Cefaperazone sulbactam

Metronidazole

Piperazillin Tazobactam

Escalate or De-escalate according to sensitivity pattern

- 6. Wound Debridement should be done if there is Necrotic tissue.
- 7. Education should be given to patients and relatives about symptoms of wound infection and proper reporting to medical officer

#### **Tuberculosis in Pregnancy**

**RNTCP Guidelines** 

#### **VIRAL INFECTIONS** (NO ANTIBIOTICS)

#### **INFLUENZA** in Pregnancy

Oseltamivir 75mg oral BD-5 days

Best Preventive strategy is single dose of killed vaccine

#### **VARICELLA**

>20 wks gestation presenting within 24 hrs of rash-Acyclovir 800mg oral 5 times a day

Severe complications-IV Acyclovir

#### VARICELLA ZOSTER IMMUNOGLOBULIN

Susceptible women <10 days of exposure

Has no role once the rash appear

#### ACUTE TOXOPLASMOSIS IN PREGNANCY

<18 wks gestation

Spiramycin 1gm oral Qid until 18 wks/Pyremethamine & Sulphadiazine-alternate every two weeks

>18 wks-documented by positive amniotic fluid PCR

Pyremethamine 50mg oral BD-2 days, then 50mg OD with sulphadiazine 75mg/kg oral single dose followed by 50mg/kg BD

Folinic acid(10-20 mg)oral daily for minimum of 4 weeks or for duration of pregnancy

# **Paediatric Infections**

#### 1. UPPER RESPIRATORY TRACT INFECTIONS

Mostly viral origin-Antibiotics not needed

a)Bacterial Pharyngotonsillitis

Penicillin V 400mg TDS-10 days

Amoxycillin 40 mg/kg/day-10 days

If Allergic to Penicillin-

Azithromycin 12mg/kg OD-5 days

#### 2. LOWER RESPIRATORY TRACT INFECTIONS

**Severe Pneumonia**-<2months-Inj.Cefotaxime or Ceftriaxone with Inj.Gentamicin for 10 days

>2 months-Inj.Ampicillin50 mg/kg/dose 6<sup>th</sup> hrly with Inj.Gentamicin 7.5 mg/kg/day OD IM or IV

Inj. Ampicillin switched to oral Amoxycillin once child is stable

Course of treatment-7-10 days

#### Severe sepsis

Inj Piperacillin Tazobactam 100 mg/kg/dose 8<sup>th</sup> hrly with Vancomycin 15mg/kg/dose 6<sup>th</sup> hrly Severe Necrotising Pneumonia

IV Vancomycin 20-30 mg IV loading dose followed by 15-20 mg/kg 8-12<sup>th</sup> hrly followed by 6mg/kg once a day

Alternate drugs-Linezolid or Teicoplanin

#### PNEUMONIA (OPD)

Oral Amoxycillin 45 mg/kg/day TDS-5 days

Or

Oral Co-trimoxazole 8mg/kg/day BD

>5yrs-Azithromycin-10mg/kg/day for 5 days

#### 3.VENTILATOR ASSOCIATED PNEUMONIA

Combination Antibiotic therapy

Piperacillin Tazobactam plus either Amikacin or Gentamicin

Or Ciprofloxacin

MRSA- Vancomycin

Second Line Therapy-Meropenam  $60 \text{mg/kg/day IV } 8^{\text{th}}$  hrly with Vancomycin  $40 \text{ mg/kg/day IV } 6-8^{\text{th}}$  hrly

#### Severe sepsis

Inj Piperacillin Tazobactam 90 mg/kg/dose 6<sup>th</sup> hrly with Vancomycin 15mg/kg/dose 6<sup>th</sup> hrly Severe Necrotising Pneumonia

IV Vancomycin 20-30 mg IV loading dose followed by 15-20 mg/kg 8-12<sup>th</sup> hrly followed by 6mg/kg once a day

#### 4.BACTERIAL MENINGITIS

Age:2 months & above

1<sup>st</sup> Line drugs- Inj.Ceftriaxone 100mg/kg/day-2 divided dose for 14 days or Inj.cefotaxime 200mg/kg/day 3-4 divided doses

 $2^{nd}$  Line Drugs-Meropenam 120mg/kg/day in 3 divided doses with Vancomycin 60mg/kg/day in 4 divided doses

H.Influenza Type b-IV Ceftriaxone for 10 days

Streptococcus pneumoniae-IV Ceftriaxone for 14 days

CHAEMOPROPHYLAXIS for meningococcal disease contacts

Rifampicin 10mg/kg/12hr-2 days

Ciprofloxacin 500 mg oral(Adults)-single dose

Inj.Ceftriaxone-single dose

Azithromycin 10mg/kg single dose

#### 5.FAUCIAL DIPHTHERIA

Inj.Crystalline Penicillin 1,00,000-1,50,000 U/kg/day IV 6thhrly for 10 days

#### **6.ACUTE OTITIS MEDIA**

Oral Amoxycillin 80mg/kg/day TDS-10-14 days

Severe cases-Inj.ceftriaxone or cefotaxime

**CSOM-**Routine systemic antibiotics not recommended until there is exacerbation

#### 7.GASTRO INTESTINAL DISEASES

#### a) Dysentry

Cotrimoxazole 6mg/kg/day-5 days

OPD-Cefixime 8mg/kg/day BD

IP-Inj.Ceftriaxone 100mg/kg/day-5-7 days

Flouroquinolones not preferred

#### b)Cholera

Fluid Management

Doxycycline 50 mg (<3yrs)100 mg (>3yrs) or Azithromycin 10 mg/kg single dose

#### c) Enteric Fever

OPD:Oral Cefixime 20mg/kg/day-14 days or Azithromycin 12 mg/kg-7 days

IP: Inj.Ceftriaxone 100mg/kg/day and shift to oral cefixime once fever resolves

Second line- Ofloxacin 15mg/kg/day in two divided doses-10-14 days

#### 8.URINARY TRACT INFECTIONS

#### a)Uncomplicated UTI

oral Co-trimoxazole 8-10 mg/kgBD or Cefixime 8-10mg/kd/day BD fpr 7-10 days

#### b)Complicated UTI

Inj.Cefotaxime or Inj.Ceftriaxone with Inj.Amikacin for 10 - 14 days(Close monitoring of renal function should be done)

In Immunocompromised /Severe systemic sepsis

Inj. Piperacillin Tazobactam 90 mg/kg/dose IV6th hrly or Inj. Meropenam<br/>20-40 mg/kg/dose  $8^{th}$ hrly for 10-14 days

#### 9.BRAIN ABSCESS

Inj.Ceftriaxone with metronidazole or Vancomycin

Drain pus-rationalise antibiotics according to sensitivity pattern-3-4 wks

#### 10.SEPTIC ARTHRITIS

Inj.Ceftriaxone/Cefotaxime with or without vancomycin or Gentamicin for 3 wks

### **Neonatal Intensive Care Unit**

#### 1.EARLY ONSET SEPSIS

Ampicillin 100mg/kg/day with Amikacin15mg/kg OD or Gentamicin 5mg/kg/day OD

#### 2.LATE ONSET SEPSIS

Ampicillin with Amikacin or Gentamicin

Suspected MRSA-Vancomycin with Cefotaxime

2<sup>nd</sup> Line drug-Vancomycin with Piperacillin Tazobactam

3 <sup>rd</sup> Line drug-Meropenam

3.Babies born to mother with **PROM >18hrs** 

Cefotaxime 100mg/kg/day BD and Gentamicin 5mg/kg/day OD

4.Babies admitted in nursery from birth with **respiratory distress >6hrs** 

Cefotaxime 100mg/kg/day BD and Gentamicin 5mg/kg/day OD

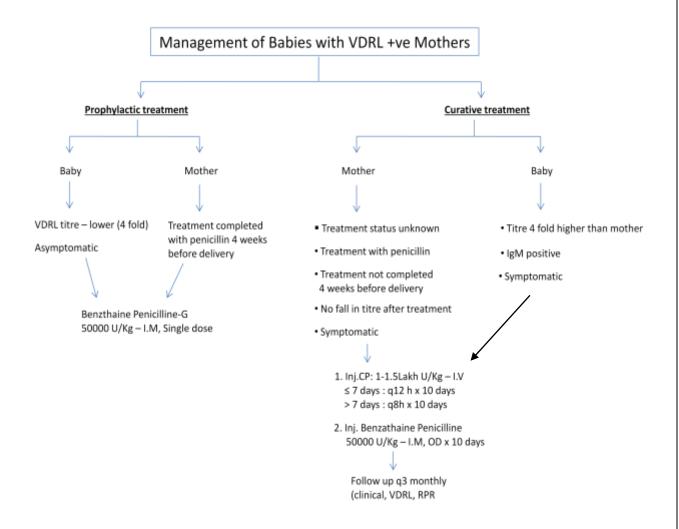
5. Babies shifted to mother and suspicion of Late onset sepsis and meningitis

Cefaperazone sulbactam 150mg/day BD with Genta 5mg/kg/day OD and Metronidazole 7.5 mg/kg/dose 8<sup>th</sup> hrly

6.Preterm babies born through meconium stained liquor with respiratory distress

Ampicillin with Gentamicin

### Department of Microbiology



# **Treatment Of Multidrug Resistant Pathogens**

MRSA-Methicillin ResistantStaphylococcus Aureus

- 1. Vancomycin / Teicoplanin
- 2.Linezolid- skin and soft tissue infections
- 3. Mupirocin-nasal carriage

VRE-Vancomycin Resistant Enterococcus

- 1.Linezolid
- 2. Ampicillin with Gentamicin-Enterococcal Endocarditis
- 3. Nitrofurantoin-Uncomplicated UTI

ESBL-Extended Spectrum Beta Lactamases

Carbapenams

#### CARBAPENAM RESISTANT ENTEROBACTERIACAE

Polymixins

Colistin

Tigecycline

# Treatment regimens of common infections

Disease	Etiological	Primary	Alternative
	agent	antibiotics	antibiotics
Acute	E.Coli	Ciprofloxacin	Nitrofurantoin
uncomplicated		Cefixime	
cystitis			
Acute	E.Coli	Ceftriaxone with	Piperacillin
Uncomplicated		Amikacin or	Tazobactam or
Pyelonephritis		Gentamicin	cefaperazone
			sulbactam
Complicated	E.Coli	Piperacillin	Meropenam
Pyelonephritis	Proteus	Tazobactam or	
	Pseudomonas	cefaperazone	
	Acinetobacter	sulbactam	
Chorioamnionitis	E.Coli	Ampicillin	cefaperazone
	Group B		sulbactam
	Streptococci		
Dysentry	shigella	cefixime	ceftriaxone
Cholera	Vibrio cholerae	Fluid replacement	Azithromycin
		Doxycycline	
Enteric fever	S.typhi	Cefixime	Ceftriaxone
	Paratyphi.A	Azithromycin	Ofloxacin
Septic arthritis	S.Aureus	Ceftriaxone	Vancomycin
	E.Coli	cefotaxime	Gentamycin
	Gp.B		
	streptococci		
Bacterial	Streptococcus	Ceftriaxone	Meropenam
Meningitis in	pneumoniae	Or Cefotaxime	
Children	Neisseria		
	H.Influenza		
		1	

# Recent Antibiotic protocol by WHO –June 2017

Watch drugs -used to treat common infections

Access drugs- slightly more potent than watch drugs

Reserve drugs-last resort drugs

Watch drugs	Access drugs	Reserve drugs
Amoxycillin	Cefotaxime	Vancomycin
Cephelexin	Ceftriaxone	Colistin
Ampicillin	Amikacin	Meropenam
Azithromycin	Gentamicin	Imipenam
Nitrofurantoin	Cefaperazone-Sulbactam	Tigecycline
Cefixime	Piperacillin-Tazobactam	Linezolid
Ciprofloxacin	Ofloxacin	
Cefuroxime		
Doxycycline		
Metronidazole		
Co-trimoxazole		
Amoxycillin		
Cephelexin		
Ampicillin		
Azithromycin		

# Anti-biogram (expressed in %) of Common Organisms isolated in our Hospital (May $2016-May\ 2017)$

	E.Coli	Klebsiella	Proteus	Pseudo	S.aureus	CONS	Providencia	Acenoto
				monas				bacter
Amikacin	96.2	96.8	83.3	100	100	100	100	100
Amoxy-Clav	5.55	12.5	50	5	50	100	0	0
Cipro	48.1	59.3	66.6	100	25	50	0	50
Co-trimox	31.4	53.1	33.3	0	50	50	100	0
СТХ	42.5	40.62	83.3	100	100	100	0	0
Cefuroxime	35.1	37.5	66.6	0	50	100	0	100
CXM	35.1	28.1	50	0	100	100	0	0
CFS	94.4	96.8	100	83.3	100	100	100	100
OF	53.7	65.6	100	100	75	100	0	50
Pip-Taz	85.1	75	100	100	50	100	100	100
Nit	12.96	21.8	16.6	0	0	0	100	100
Nx	24	40	66	16	0	0	0	50
Azm	0	6.25	0	0	0	0	0	0
Lz	-	-	-	-	100	100	0	0
Va	-	-	-		100	100	0	0
Сх	-	-	-	-	50	50	0	0

Ctx-Cephotaxime

**Cxm-Cefuroxime** 

**CFS-Cefaperazone-Sulbactum** 

**OF-Ofloxacin** 

**Nit-Nitrofurantoin** 

Nx-Nalidixic acid

**Azm-Azithromycin** 

Lz-Linezolid

Va-Vancomycin

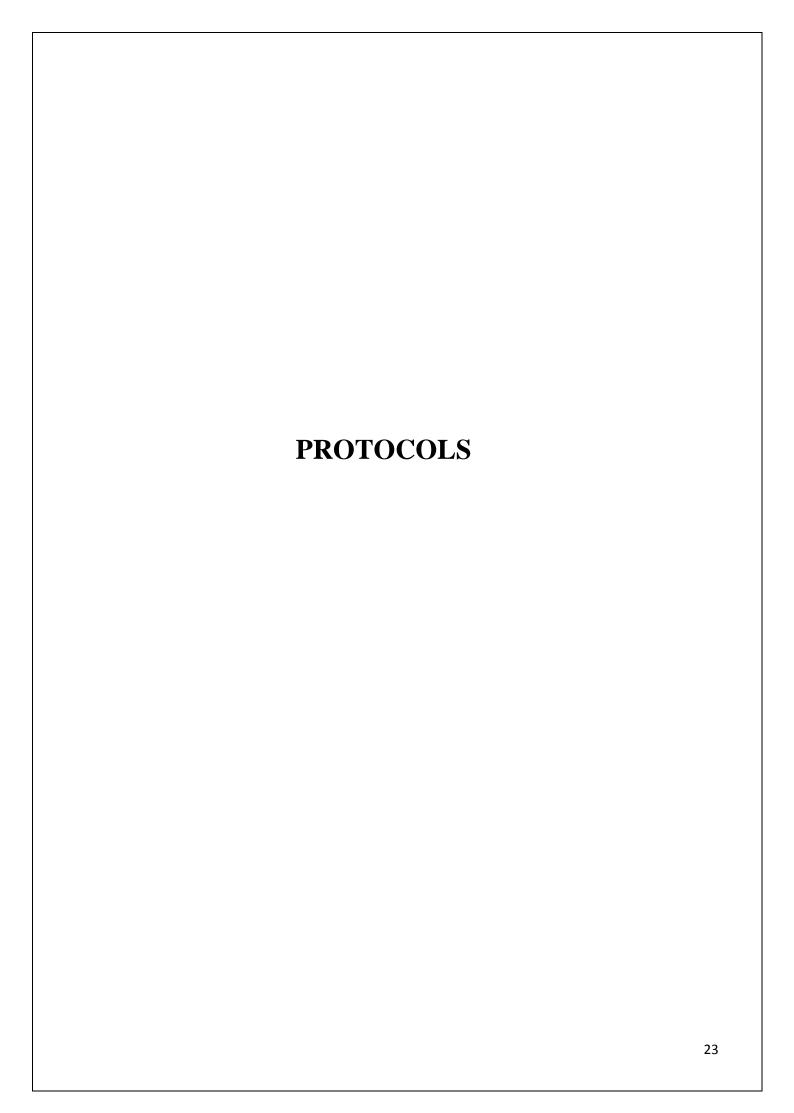
**Cx-cefoxitin** 

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Diseases 2016 (version.1), National Centre for Disease control, Government of India.

- 2.Treatment Guidelines for antimicrobial use in common syndromes, Indian Council of Medical Research2017,New Delhi,India.
- 3.Antibiogram of RGGW&CH ,2016-2017.



Bio-Medical Waste Management Department of Microbiology

# **Blood & Body Fluids Spill management**

	·
	Isolate spill area
	$\bigcap$
	Wear gloves, mask & plastic apron
	$ar{\mathbb{Q}}$
	Cover spill area with absorbent material
Pou	r 1% Sodium hypochlorite around the edges & into spill
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	Allow for 10 minutes
`	$\overline{\mathbb{Q}}$
	Remove & discard in bio-hazard waste container
	<u></u>
	Clean the spill site with detergent
	Remove gloves & wash hands
	$igcup_{}$
broken gl	ass present, use forceps to pick up and place in sharps container
	Ţ
	Notify the spill and keep record

Bio-Medical Waste Management Department of Microbiology

# **MERCURY SPILL MANAGEMENT**

	Put on face Mask	
	Remove Jewellery	
	Ţ	
	Wear Gloves	
	Į.	
	Remove Jewellery	
<i>,</i>	Û	
	Use 2 cardboard sheets to gather all the mercury	
	Ţ.	
	Use Syringe without needle to suck up mercury	
	$\prod$	
Pour con	tents of syringe into plastic/glass container with 5-10 ml	of water
	$ar{\mathbb{Q}}$	
	Put sealing tape to the container	
	Î	
	Put used syringe in separate plastic container	
·	$\Box$	
	De-contaminate the area with disinfectant solution	
	<u> </u>	
	Notify the spill and keep record	
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# **Hospital Infection Control Committee**

### **Aseptic measures in Labour Room**

- 1. Infectious patients should be admitted to separate labour room
- 2. Patient care items must be labelled to eliminate crosscontamination
- 3. All furnitures should be thoroughly cleaned
- 4. Sharp containers should be changed when 3/4<sup>th</sup> full
- 5. Floor should be mopped once a shift
- 6. No food or beverages at the nurses station
- 7. Separate clean clothes for patients in labour should be given
- 8. Pre-autoclaved sets to be kept ready for each use
- 9. Spills should be cleaned as soon as possible
- 10. Proper waste disposal should be followed
- 11. Wear uniform and avoid outdoor clothing

# Infection control Measures in Operation Theatre

- 1. Strict aseptic technique should be followed by all personnel
- 2. Surgical hand scrub for 5 minutes with Iodophor or Alcohol
- 3. Keep nails short and clean
- 4. Attention must be paid to the under-surface of nails
- Keep door closed except for the paasage of equipment, personnel or patient
- 6. Keep minimum number of people to enter the operation theatre
- 7. Keep operating room easy to clean.
- 8. Clean and disinfect the table and instrument surfaces in between the cases.
- 9. At the end of each day, clean the operating room starting at the top and continue to the floor including all furnitures and overhead equipments.
- 10. Leave the operating room ready for use in case of emergency.

## **Hospital Infection Control Committee**

# **Prevention of Sharp Injuries**

- 1. Do not recap needles
- 2. Set-up sharps container s in places where they are used
- 3. Do not use the same injection set for more than one patient
- 4. Pass needles, scalpels and scissors with care and consideration
- 5. Protect areas of broken skin with water-tight dressings
- 6. Wear gloves during exposure to blood and body fluids
- 7. Wash immediately with soap and water in case of injuries
- 8. Report immediately to Hospital Infection Control Committee in case of injuries
- 9. Sharps containers should be changed when 3/4<sup>th</sup> is full.

# Rajiv Gandhi Govt.Women & Children Hospital Department of Microbiology Strategies to reduce Urinary Tract Infections

1. Insert catheters only for appropriate indications Prolonged immobilisation

Incontinence

Measure urine output

Post-operative patients

Outlet obstruction

- 2. Periurethral cleaning with antiseptic should be done before inserting catheter
- 3. Maintain closed drainage system
- 4. Maintain unobstructed urine flow
- 5. Remove catheter when it is no longer needed
- 6. Specimen collection should be done from the distal end of catheter or urine aspirated with sterile needle and syringe

Department Of Microbiology

# **Strategies to Prevent Catheter Related Blood Stream Infections**

- 1. Hand hygiene and wearing of clean gloves should be done before insertion
- 2. Clean skin with an antiseptic solution
- 3. Antiseptics should be allowed to dry before insertion
- 4. The site should not be palpated after applying antiseptic solution
- 5. Catheter should be secured properly
- 6. Evaluate the catheter insertion site daily
- 7. Remove peripheral venous catheter immediately if patient develops signs of phlebitis
- 8. Catheter can be kept for maximum of 72 to 96 hrs if there are no signs of phlebitis

# Rajiv Gandhi Govt. Women & Children Hospital Department Of Microbiology Strategies to Reduce Ventilator Associated Pneumonia

- 1. Avoid intubation whenever possible
- 2. Prefer oral intubation to nasal
- 3. Keep head elevated at 30 to 45 degree
- 4. Daily oral care with chlorhexidine solution should be done
- 5. Monitor endotracheal tube cuff pressure to avoid air leaks around the cuff
- 6. Daily assessment to extubate should be done
- 7. Periodically drain and discard any condensate that collects in the tubing of mechanical ventilator

# Rajiv Gandhi Govt.Women & Children Hospital Department Of Microbiology Strategies To Reduce Surgical Site Infection

# **Pre-Operative Care**

- 1. Pre-operative showering of patients with antiseptic soaps
- 2. Surgical scrubbing-All the steps of Hand washing with alcohol or Iodine compounds should be done
- 3. Clean and proper surgical attire
- 4. Pre-operative Hair removal-Depilatory agents should be used
- 5. Management of infected surgical personnel
- 6. Antimicrobial prophylaxis in case of clean and clean contaminated wounds

## **Intra-Operative**

- 1. Proper ventilation
- 2. Anaesthetists should also abide the principles of asepsis
- 3. Skin preparation in concentric circles from the area of proposed incision
- 4. Minimize persons inside OT
- 5. Minimal Handling of Tissues and maintain Haemostasis
- 6. Assembly of Equipments and solutions and injections long before procedures should not be done

# **Post-Operative Care**

- 1. Saline dressing-48 hrs
- 2. No Topical Antibiotics in clean wounds

- 3. Minor infection-drainage of pus(removal of sutures)
- 4. Localised infection with minimal systemic findings

  Inj.Cefotaxime 1gm IV 8<sup>th</sup> hrly or Ceftriaxone 2gm IV Od followed by 1gm every 24 hrs
- 5. Clean -contaminated wound

Cefaperazone sulbactam

Metronidazole

Piperazillin Tazobactam

Escalate or De-escalate according to sensitivity pattern

- 6. Wound Debridement should be done if there is Necrotic tissue.
- 7. Education should be given to patients and relatives about symptoms of wound infection and proper reporting to medical officer.

# Skin cleanser (2% Chlorhexidine)





surgical scrub (4% Chlorhexidine)



