WASHINGTON ADVENTIST HOSPITAL
PATIENT CARE POLICY MANUAL

RESUSCITATION

Effective Date: 4/74 **Policy No.WAH.5736**
Cross Referenced: 5738, Nursing Procedure 1001 Origin: NRSG
Reviewed: 7/91, 1/96, 7/07 Authority: SM
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SCOPE
This policy has hospital-wide application.

PURPOSE
To provide for appropriate emergency response to situations requiring initiation of Basic Life Support (BLS) Advanced Cardiac Life Support (ACLS).

DEFINITITIONS
Code Blue - Adult – Cardiopulmonary arrest in person > 35 kg. or 12 years of age.
Code Blue - Child – Cardiopulmonary arrest in person between 1 year and 12 years of age or < 35 kg.
Code Blue - Infant – Cardiopulmonary arrest in person birth to 1 year of age.

POLICY
In the absence of a "Do Not Resuscitate" (DNR) order, all patients with cardiac and respiratory arrests will be treated in compliance with a resuscitation policy. Resuscitation efforts will be maintained until a physician determines that such measure should be terminated. "Code Blue-Adult" will be announced for adult resuscitation events, "Code Blue-Child" for pediatric resuscitation events, and "Code Blue-Infant" for neonatal and infant resuscitation events. (This policy does not prohibit the presence of family during a code.)

PROCEDURE
I. INITIATION OF CODE BLUE – In-House: Call Page Operator at 5555. **If Initiation of Code is Outside the Main Hospital Building:** Call the Page Operator at 301-891-5555 or 301-891-7600.

II. CODE BLUE TEAM MEMBERS

A. Code Blue Adult – Team Members
1. First Responder
2. Second Responder
3. Unit Charge Nurse
4. Patient's Primary RN
5. Crisis/ED/ICU RN
6. Director/ Clinical Nurse Specialist/Administrative Supervisor
7. Critical Care Physician/ED Physician/Anesthesiologist assigned to the Code Pager (if available)
8. Respiratory Care Practitioner (RCP)
9. Transporter
10. Pastoral Care
11. Unit Support Coordinator

B. Code Blue Child – Team Members
1. Neonatologist/Pediatrician
2. ED Physician
3. ED RN
4. ED Technician
5. Respiratory Care Practitioner (RCP)
6. Supervisor/Charge RCP
7. Anesthesiologist assigned code pager (if available)
8. Administrative Supervisor
9. Transporter
10. Pastoral Care

C. Code Blue Infant – Team Members
1. Neonatologist/Pediatrician
2. Respiratory Care Practitioner (RCP) assigned to Code Pager
3. Supervisor/Charge RCP
4. Anesthesiologist assigned to Code Pager (if available)
5. Administrative Supervisor
6. Nursery Nurse
7. Labor and Delivery Nurse
8. ED RN, if code takes place outside of Labor and Delivery/Postpartum/Nursery Units
9. Transporter
10. Pastoral Care

III. CODE BLUE TEAM ROLES AND RESPONSIBILITIES

TEAM MEMBER	RESPONSIBILITIES
First Responder	• Calls Page Operator at 5555 and/or pushes the CODE Blue Button in patient's room. • Calls out for help • Initiates 1-person CPR • Requests AED (on Units 2100, 2200, 3200, 4200, 3100) • Helps place board under patient • Does chest compression until relieved by Respiratory Care Practitioner • Calls for chart • Assists Crisis/ED/ICU RN • Participates in code blue performance improvement evaluation
Second Responder	• Brings cart and AED/Defibrillator • Applies AED/Defibrillator, analyzes the patient's cardiac rhythm, and provides shock if indicated. • Takes board off cart and places under patient • If Respiratory Care Practitioner not there, gets Bag Valve Mask from cart and connects to O2 and ventilates the patient until relief from the RCP. • Breaks open cart lock, opens bottom drawer • Lifts up shelf on right of cart for use • Prepares and dispenses medications and cart supplies • Sets up or delegates suction setup • After code, cleans cart, removes clipboard, replaces code documentation forms
Patient's RN	• May be 1st or 2nd responder • Provides pertinent patient information to team (e.g. admitting diagnosis, events leading to code, medications) • Takes vital signs • Establishes IV access and patency • Accompanies patient when transferred • Gives report to receiving RN/MD Code leader
Charge Nurse	• Initiates and continues documentation on Cardiopulmonary Resuscitation Form until relieved • Gives direction to nursing team until Crisis/ED/ICU RN • arrives; then assists in assigning roles • Assures patient chart is available at bedside • Gives direction for removal of roommate • Gives direction to unit support coordinator re: placing phone call to attending, family, clergy

TEAM MEMBER	RESPONSIBILITIES
	• Arranges for transfer, proper placement of patient in another unit • Retrieves medication that is not on cart • Retrieves or delegates retrieval of equipment • Assures all patients on unit are covered • Facilitates code blue performance improvement evaluation
Crisis/ED/ICU RN	• Identifies team members; assigns as needed. • If AED has been initiated by floor staff, checks pad placement and AED analysis, defibrillates if indicated, disconnects from AED and connects to Code Blue Defibrillator *OR* • If AED/Defibrillator has not been initiated by floor staff, places pads on patient; connects to monitor, interprets rhythm and defibrillates. • Obtains code summary from monitor • Administers medications and regulates IV infusions • Relates to recorder medications given/IVs hung/defibs (joules) rhythms/procedures) • May accompany patient when transferred • Facilitates code blue performance improvement evaluation **RESPONSIBILITIES of ED/NURSERY RN'S RESPONDING TO CODE BLUE – CHILD or CODE-BLUE – INFANT** • Brings Pediatric or Neonatal Code Cart • For child codes outside of Maternal/Child or ED, ED will respond and bring pediatric equipment • Brings pediatric stethoscope • Assists with transport of patient
Director Nursing Coordinator Clinical Nurse Specialist Administrative Supervisor	• Assumes role to document code on appropriate Cardiopulmonary Resuscitation Form upon arrival • Evaluates functioning of non-physician team members and intervenes as needed • Controls number of personnel • Obtains additional personnel as needed. • Gives direction for obtaining additional equipment. • Prepares IV flushes for Crisis/ED/ICU RN • Sets up IV infusions. • Administers medications as requested. • Assists in arranging transfer as needed. • Assists with facilitation of code blue PI evaluation • Places original copy of code sheet in patient's chart • Responsible to insure IV pumps available during night shift. • Retrieves clean, locked code cart to replace used cart on units.
Critical Care Physician/ED Physician/Anesthesiologist (if available)/Neonatologist (if applicable)/ Pediatrician (if applicable)	• Coordinates all team activity • Informs family of outcome • Participates in code blue performance improvement evaluation • Directs code (coordinates with ED physician) • Establishes functional airway and ventilation • Intubates and assesses ventilation effectiveness • Inserts central vascular access *if applicable* • Determines dosages and orders all medications • Notifies private attending if applicable • Informs family of outcome / PMD

TEAM MEMBER	RESPONSIBILITIES
	• Signs appropriate cardiopulmonary resuscitation form • Documents in medical record • Signs death certificate, if applicable
Respiratory Care Practitioner 1	• Assumes airway management. • Brings intubation bag. • Operates manual resuscitation bag • Administers oxygen • Prepares for emergency intubation • Assists with intubation
Respiratory Care Practitioner 2	• performs chest compressions as needed • Obtains and runs ABGs • Secures ET tube • Arranges for mechanical ventilator setup • Obtains portable oxygen for transport • Assists with transport of patient • Monitors patient's response to airway/ • Ventilation management
Transporter (if available)	• Transports blood specimens to lab • Assists with obtaining ordered equipment and supplies outside of patient room or to code location as directed by charge nurse. • Brings new code cart to unit
IV Pump Technician (if available)	• Brings IV pump on IV pole to room • Assists with obtaining and transporting of equipment and supplies
Pastoral Care	• Addresses family concerns and needs if present. • Addresses patient's spiritual needs • Offers spiritual support to family, patient, and staff • Offers encouragement to other patients and visitors affected by code
Unit Support Coordinator (if available)	• Turns on Nurse Call in room. • Places all phone calls to attending physician, family, etc. as requested • Prepares chart for transfer

IV. ZONE COVERAGE FOR CODE RESPONDERS

RESPONDER	ZONES COVERED	RESPONSIBILITIES
Emergency Department	1. Code Blue – Adult & Infant: a. Lower Level 1 b. Lower Level 2 c. Lower Level 3 d. Hospital Perimeter Areas (includes: Professional Office Building, Conference Center Building, Lisner Building, and CVS Building, codes occurring outside the hospital but on the premises. e. Adventist Rehab Unit (5200) except for between the hours of 1am and 8am 2. Code Blue – Child a. All facility locations.	1. 24 hr. Code Blue - Adult coverage for defined areas. 2. 24 hr. Code Blue – Child coverage for entire facility. 3. 24 hr. Code Blue – Infant coverage outside of Labor and Delivery/Postpartum/Nursery Units. 4. Respond with monitor/defibrillator. 5. Manage patient care with Code Blue team until patient is transferred to definitive disposition.
Unit 1500	1. Level 1 (includes: PACU, SSU, Surgical Holding area, OR (if requested) hospital lobby, outpatient rehab, pulmonary medicine)	1. 24 hr. Code Blue - Adult coverage in defined zones. 2. Respond with monitor/defibrillator. 3. Manage patient care with Code

RESPONDER	ZONES COVERED	RESPONSIBILITIES
	2. Unit 2500 3. Unit 2100	Blue team until patient is transferred to definitive disposition. 4. If unable to provide code coverage, collaborate with Administrative Supervisor or Nursing Director to ensure code coverage. 5. Act as back-up for second code for 4300.
Unit 4300	1. Level 3 2. Level 4 3. Level 5 (Including Endoscopy) 4. Level 6 5. Unit 2200 (including: Rehab satellite and hydrotherapy) 6. Speech Therapy (4th floor) 7. Adventist Rehab Unit (5200) between the hours of 1am and 8am.	1. 24 hr. Code Blue - Adult coverage in defined zones. 2. Respond with monitor/defibrillator. 3. Manage patient care with Code Blue team until patient is transferred to definitive disposition. 4. If unable to provide code coverage, collaborate with Administrative Supervisor or Nursing Director to ensure code coverage. 5. Act as back-up for second codes for 1500.
OR Team	Operating Suites	1. 24 hr. Code Blue Coverage 2. Can request back up from 1500.
Administrative Supervisor		3. Responds to all Code Blue calls on a 24/7 basis. 4. Documents all treatment given. 5. Assists with post resuscitation management and placement of the patient. 6. Coordinates reassignment of code blue zone coverage with unit's charge nurses.
Nursery RN/ Labor And Delivery RN	Code Blue - infant in all locations.	1. 24 hr. Code Blue - Infant for defined area. 2. Respond with monitor/defibrillator. 3. Manage patient care with Code Blue team until patient is transferred to definitive disposition.

V. CODE BLUE IN ADVENTIST REHABILITATION HOSPITAL (5200)

A. The nurse assigned to the patient is responsible for providing pertinent information about the patient to the Code Blue team.

B. The Code Blue – Adult team will respond to all cardio-pulmonary emergencies. (Note: The ED Physician will respond to 5200 except for between the hours of 1am and 8am when the Intensivist will respond.

VI. **CODE BLUE ADULT OUTSIDE HOSPITAL BUILDING BUT ON PREMISES** (Professional Office Building, Conference Center Building, Lisner Building, and CVS Building and any other areas covered by the EMTALA regulation)

A. Notify the Code Blue by calling hospital operator at 301-891-5555 or 301-891-7600. Report exact location of the Code to the operator.

B. In conjunction with calling the hospital operator, dial 911 to dispatch nearest medic unit/ambulance to the site.

C. Security Control will direct EMS vehicle to location of code.

D. The ED RN assists the ED physician to manage the bedside patient care with the Code Blue until the patient is transferred to definitive disposition.

E. Responding hospital staff will assist ambulance/medic unit, as requested, with transport of patient to ED.

F. Documentation of events prior and during resuscitation is the responsibility of the facility's staff.

VI. DOCUMENTATION

A. The ***Cardiopulmonary Resuscitation Form*** (WAH 650-173) is used for all Code Blue - Adult and Child codes**.**

B. The Cardiopulmonary Resuscitation Infant Form (WAH 650-154A) is used for all Code Blue-Infant codes.
1. The Code Blue - Infant Cardiopulmonary Resuscitation Form is to be initiated in L&D for any of the following:
   a. All Code Blue - Infant.
   b. If neonate's 1 minute APGAR score is equal to or less than 3
   c. If the 5 minute APGAR is equal to or less than 5
   d. Any baby with respiratory depression and/or cardiac symptoms requiring positive ventilation.

C. Complete all sections of the documentation form completely, leaving no blank sections.
1. Record the time, rhythm, joules delivered and presence of a pulse each time a patient undergoes cardioversion or defibrillation.
2. Record the time, rhythm and pulse before each medication is given as well as any change in rhythm and pulse after each medication is given. Include dose & route of administration for each medication.
3. Record the type of intravenous solution and what time they are hung.
4. Record vital signs, presence of a pulse and rhythm at least every 5 minutes during the code. Write 0 if vital sign is absent.
5. The physician is responsible for documenting the post-arrest diagnosis in the progress notes and for signing the code documentation form. The physician's signature on the code form covers all interventions administered during the code.
6. The primary nurse will record a summary statement in the nursing progress notes including events leading up to the code and times, the patient's condition and disposition after the code.

VII. CODE CARTS

A. Code Cart Checks – Using the ***Code Cart Checklist*** (WAH 601-492) at least once a day.

B. Code Cart Locations

CART LOCATION	# OF CARTS	DEFIB	AED	CODE CART ADULT	CODE CART PEDIATRIC	CODE CART NEONATAL	COMMENTS
1500	2	✓✓		✓✓			
5300	1		✓	✓			
4300	1	✓		✓			
4100 IMCU	2	✓✓		✓			
2500	1	✓		✓			
5100	1	✓		✓			
Emergency Department	4	✓✓✓		✓✓✓	✓		Pediatric cart contains neonatal supplies &

CART LOCATION	# OF CARTS	DEFIB	AED	CODE CART ADULT	CODE CART PEDIATRIC	CODE CART NEONATAL	COMMENTS
							meds
4200	1		✓	✓			
3200	1		✓	✓			
2200	1		✓	✓			
2100	1		✓	✓			
Labor & Delivery	2	✓		✓		✓	
Nursery	1					✓	
3100	1		✓	✓			Shares with Nursery
5200	1		✓	✓			
OR	1	✓		✓			
SSU	1	✓		✓			
PACU	2	✓✓		✓	✓		Pediatric cart contains neonatal supplies & meds
Transcare	1	✓		✓			
Radiology	1			✓			
X-Ray	1		✓				
Radiology CT	1			✓			
Radiology MRI/US	1	✓		✓			
Radiation Oncology	1			✓			Shares with MRI
Special Procedures	1	✓					
Cath Lab 1&6	2	✓✓✓✓		✓✓			
Cath Lab 2&3	1	✓✓		✓			
Cath Lab 4&5	1	✓✓✓✓		✓			
EP Lab	1	✓					
Cardiology	1	✓✓✓		✓			
Nuclear Med.	1		✓	✓			
Cardiac Rehab	1		✓	✓			
Pulmonary Medicine	1		✓	✓			
Pharmacy	6			✓✓✓✓	✓	✓	
Women's Center (Conf Ctr)	1			✓			
LL2 (Quality)	1	✓		✓			
Employee			✓				

CART LOCATION	# OF CARTS	DEFIB	AED	CODE CART ADULT	CODE CART PEDIATRIC	CODE CART NEONATAL	COMMENTS
Health (Lisner)	1			✓			

C. Code Cart Contents - Cart Reviewed on Yearly Basis
1. Adult Code Cart – See Attachment A
2. Pediatric Code Cart – See Attachment B
3. Neonatal Code Cart – See Attachment C

D. Code Cart Exchange Process
1. All code carts (adult, pediatric and neonate) will be exchanged using the same process.
2. Second drawer of adult carts will contain IV fluids.
3. Third drawer of adult carts will hold medications.
4. First drawer of pediatric and neonatal carts will hold neonatal medications and IV fluids. The pediatric medications will sit on the pediatric code cart in a locked box.
5. Medications will be placed in drawer using drawer insert.
6. After use, code cart will be locked with a white breakaway lock (non-numbered), found in the medication drawer of the cart. If the pediatric medication box is used, it will be locked with the white breakaway lock found in the box.
7. The defibrillator/AED will be cleaned and remain on the unit.
8. The used code cart will be transported to the Pharmacy.
9. Pharmacy will remove the medication and IV fluid inserts for restocking.
10. The cart, without medications, will be taken to Sterile Processing Department (SPD) for restocking of supplies.
11. If the oxygen tank is missing or not full, SPD will contact Respiratory Therapy to replace the tank.
12. After supplies have been restocked, the cart will be taken to Pharmacy where the replenished medications will be returned to the cart.
13. <u>All locks are kept in the pharmacy. Pharmacy will not dispense code cart breakaway locks to any other department.</u>
14. The cart will be locked by Pharmacy (blue lock).
15. The number on the blue lock will match the number on the new code cart sheet.

E. Obtaining a New Code Cart from Pharmacy
1. From 6a-1a Monday through Friday and 7a-10:30p Saturday and Sunday, the transporter will bring the appropriate new code cart at the request of the unit where the Code Blue took place.
2. When a code blue is called during hours that a transporter is not staffing, the Administrative Supervisor or his/her designee will retrieve a replacement cart from the Pharmacy and take it to the unit.
3. On nights, weekends and holidays, if all back up pharmacy carts are in use or dirty, the administrative supervisor will obtain a cart from one of the non 24 hour departments, i.e. Pulmonary Medicine, Cardiology, Quality, EP lab.

F. Respiratory Supplies
Responding respiratory therapist will bring intubation kit to all adult code blue calls
1. Appropriate intubation kits will be placed on pediatric carts. They will be maintained by Respiratory Therapy.
2. Appropriate intubation kits will be placed on neonatal carts. They will be maintained by Respiratory Therapy.

G. Cart Maintenance Responsibilities

DEPARTMENT	RESPONSIBILITY
STERILE PROCESSING DEPARTMENT	1. Responsible for cleaning, decontaminating & coordinating the restocking of supplies and equipment in all code carts: Adult, Pediatric, and Neonatal. 2. Responsible for restocking all supplies except respiratory supplies & medications. 3. Write the date the first SPD item expires on the pharmacy sticker on the medication drawer. 4. Check the suction machine to ensure that it is operating correctly. 5. Return code cart to pharmacy for re-stock of medications, locking and storage. 6. Check oxygen tank. If not full or missing, contact Respiratory Therapy to replace the tank.
RESPIRATORY THERAPY	1. Responsible for restocking all respiratory therapy supplies in the intubation bags. 2. Write the date the first RT item expires on the RT sticker & places it on the intubation bag or tray
PHARMACY	1. Responsible for restocking medications (Pharmacy is the last department to restock the code cart & once they have restocked the medications, they place a numbered breakaway lock (blue) on the cart). 2. The pharmacist-on-duty in the dispensing area is responsible for refilling the used code carts. They may be filled by a tech, but a pharmacist is responsible for checking and locking. 3. The pharmacy technician writes the lock number & date the first medication expires on the pharmacy sticker. The technician places the pharmacy sticker on the front of the medication drawer. 4. The pharmacy technician writes the date the first medication expires on the Code Cart Charge Sheet.
NURSING UNITS	1. Check code carts and defibrillators daily. 2. The code cart must be exchanged promptly in any of the following conditions exist: a. Code cart was opened (even if no items were used). b. Medications or supplies are expired. c. Lock is missing or damaged. d. 3 X 5 card (with code cart expiration date and lock number) on front of cart is missing or cart lock number does not match card. e. Lock # on the code cart does not match the lock # written on the new code restock sheet. 3. After use, using white lock found in medication drawer, lock code cart prior to pick up by transporter. 4. Label charge slips with patient's label. 5. Obtain a locked code cart from Pharmacy prior to removing the used/expired code cart from the unit. 6. Transfer the defibrillator and battery suction machine, if applicable to the new cart. Do not take the defibrillator or battery suction to SPD. 7. Have transporter take the used/expired code cart to Pharmacy and after the medication tray is removed by pharmacy, take cart to SPD.

DEPARTMENT	RESPONSIBILITY
TRANSPORTERS	1. Will take the appropriate Code cart to the unit where the Code Blue occurred as requested by the unit. 2. Upon completion of a code, take the locked, used code cart to the pharmacy and after the medication tray is removed by pharmacy, take cart to SPD.

REFERENCES:

American Academy of Pediatrics. Neonatal Resuscitation Program. 6th Edition, 2010. AAP/ACOG. Guidelines for Perinatal Care. 5th Edition, 2002.

2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science. *Circulation*. 2010;122:S920–S933.

ATTACHMENT A

ADULT CODE CART CONTENTS
2/1/2012

DRAWER ONE CONTAINS:	
Section One: Item Description	**Quantity**
Short Arm board	1
SmartSite Blood Set	1
Latex-Free Infusion Set	2
Section Two: Item Description	**Quantity**
Extension Tubing	1
Section Three: Item Description	**Quantity**
IV Start Pack	3
Section Four: Item Description	**Quantity**
Angiocatheters 20g x 1¼"	2
Angiocatheters 18g x 1¼"	1
Angiocatheters 14g x 2"	4
Butterfly Set 21g x ¾"	3
Needle, Hypo 19g x 1½"	8
Needle, spinal 18g x 3½"	3
Filter Straws	12
Section Five: Item Description	**Quantity**
Alcohol Wipes	20
Section Six: Item Description	**Quantity**
Bandage Scissors	1
Transpore tape 1 Roll each: 1 inch, 2 inch	2
Tourniquet	1
Section Seven: Item Description	**Quantity**
Three-way stopcock	2
Clave Needleless connector	6
60cc Syringe	2
12cc Syringe	8
6cc Syringe	10
Section Eight: Item Description	**Quantity**
Pneumothorax reducing kit	1

DRAWER TWO CONTAINS: IV Solutions	
Item Description	**Quantity**
D5W 100 ml PVC free bag (one amiodarone vial attached to bag)	1
D5W 250 ml	2
Dopamine 200 mg/D5W 250 ml	1
Hetastarch 6% in 0.9% NaCl, 500 ml	1
Lidocaine 2G/250mL D5W bag	1
NaCl 0.9%, 250 ml	2
NaCl 0.9%, 1000 ml	1

ADULT CODE CART CONTENTS CONTINUED NEXT PAGE

ATTACHMENT A continued - ADULT CODE CART CONTENTS
2/1/2012

DRAWER THREE CONTAINS: Medications	
Item Description	**Quantity**
Adenosine 6 mg/2 ml vial	5
Amiodarone 150 mg/3 ml vial (one kept with D5W 100 ml PVC-free bag)	6
Atropine Sulfate 1 mg/10 ml syringe	4
Calcium Chloride 1 Gm/10 ml syringe	2
Dextrose 50%, 50 ml syringe	4
Epinephrine 1 mg/10 ml syringe (1:10,000)	15
Epinephrine 30 mg/30 ml injection (1:1000)	1
Flumazenil 0.5 mg/ 5 ml vial	2
Lidocaine 100 mg/5 ml syringe	4
Magnesium Sulfate 50%, 1 Gm/2 ml (8 mEq/2 ml)	3
Naloxone 0.4 mg/1 ml amp	4
Sodium Bicarbonate 50 mEq/50 ml syringe (8.4%)	4
Sodium Chloride 0.9%, 20 ml vial (preservative-free)	4
Sodium Chloride 0.9%, 10 ml syringe	6
Vasopressin 20 units/1 ml	4
Norepinephrine 4mg/4mL (2, 250mL bag of D5W kept with vials)	2
DRAWER FOUR CONTAINS:	
Item Description	**Quantity**
Suction Regulator	1
Red Sharps Container	1
Flashlight	1
Blood Pressure Cuff, Disposable	1
Gloves, Medium Exam	1 BX
Mask with shield	1 BX
Sterile Gloves, size 6	3
Sterile Gloves, size 7	3
Sterile Gloves, size 8	3
9 FR Percutaneous Sheath Introducer Kit	2
Maximum Barrier Central Line Kit	1
Unifusor pressure bag, 500cc	1
Salem Sump, size 16	1
Irrigation tray, Bard	1
Impervious Gown	1 BX
OUTSIDE OF CODE CART CONTAINS:	
Ambu Bag - adult	1

ATTACHMENT B

PEDIATRIC CODE CART CONTENTS
2/1/2012

DRAWER ONE CONTAINS:		
Items Description:		**Quantity**
2007 Broselow Tape		1
DRAWER TWO (PINK/RED) CONTAINS:		
Section	**Items Description:**	**Quantity**
One	Angiocatheters size: 22ga x 1 and 24ga x ⅝	2 EA
One	Tape, 1 inch Transpore	1 EA
One	Infant Armboard	1 EA
One	IV Start Pack	1 EA
One	Extension Set	1 EA
Two	UAC Tray	1 EA
Three	Dressing, Transparent – 3M Tegaderm	1 EA
Three	Alcohol Pad	10 EA
Four	Suction Catheter: 8FR, 10FR	1 EA
Four	Nasogastric Tube: 5FR, 8FR	1 EA
Four	Foley Catheter, 5FR	1 EA
Five	Airway, Oral: 4cm and 5cm	1 EA
Six	Cannula, Infant Nasal	1 EA
Six	Pediatric Non-Rebreather Mask	1 EA
	Chest tube 10Fr	1 EA
	Chest tube 12 Fr.	1 EA
DRAWER THREE (PURPLE) CONTAINS:		
Section	**Items Description:**	**Quantity**
One	Angiocatheters size: 22G x 1 and 24G x ⅝	2 EA
Two	Tape, 1 inch Transpore w/tourniquet	1 EA
Two	Alcohol Pad	10 EA
Three	Armboard, Sm.	1 EA
Three	IV Start Pack	2 EA
Three	Extension Set	1 EA
Three	Dressing, Transparent – 3M Tegaderm	1 EA
Four	Foley Catheter, 8FR	1 EA
	Foley Catheter, 10 Fr	1 EA
Four	Suction Catheter, 10FR	1 EA
Four	Nasogastric Tubing: 8FR, 10FR	1 EA
Five	Airway, 6cm Oral	1 EA
Six	Pediatric Non-Rebreather Mask	1 EA
Six	Cannula, Infant Nasal	1 EA
	Chest Tube 16 Fr	1 EA
	Chest Tube 20 Fr	1EA
DRAWER FOUR (YELLOW) CONTAINS:		
Section	**Items Description:**	**Quantity**
One	Angiocatheters size: 20G x 1¼ and 22G x 1	2 EA
Two	Tape, 1 inch Transpore	1 EA
Two	Alcohol Pad	10 EA
Three	Armboard, Sm.	1 EA
Three	IV Start Pack	2EA
Three	Extension Set	1 EA
Three	Dressing, Transparent – 3M Tegaderm	1 EA
Four	Foley Catheter, 10FR	1 EA
Four	Suction Catheter, 10FR	1 EA
Four	Nasogastric Tubing: 10FR	1 EA
Five	Airway, 6cm Oral	1 EA

Six	Pediatric Non-Rebreather Mask	1 EA
	Chest Tube 20 Fr.	1 EA
	Chest Tube 24 Fr.	1 EA

DRAWER FIVE (WHITE) CONTAINS:

Section	Items Description:	Quantity
One	Angiocatheters size: 20G x 1¼ and 22G x 1	2EA
Two	Tape, 1 inch Transpore	1 EA
Two	Alcohol Pad	10 EA
Three	Armboard, Sm.	1 EA
Three	IV Start Pack	2EA
Three	Extension Set	1 EA
Three	Dressing, Transparent – 3M Tegaderm	1 EA
Four	Foley Catheter: 10FR, 12FR	1 EA
Four	Suction Catheter, 10FR	1 EA
Four	Nasogastric Tubing: 10FR	1 EA
Five	Airway, 6cm Oral	1 EA
Six	Pediatric Non-Rebreather Mask	1 EA
Six	Cannula, Pediatric Nasal	1 EA
	Chest Tube 20 Fr	1 EA
	Chest Tube 24 Fr	1 EA

DRAWER SIX (BLUE) CONTAINS:

Section	Items Description:	Quantity
One	Angiocatheters size: 20G x 1¼ and 22G x 1	2 A
Two	Tape, 1 inch Transpore	1 EA
Two	Alcohol Pad	10 EA
Three	Armboard, Sm.	1 EA
Three	IV Start Pack	2EA
Three	Extension Set	1 EA
Three	Dressing, Transparent – 3M Tegaderm	1 EA
Four	Foley Catheter: 10FR, 12FR	1 EA
Four	Suction Catheter, 10FR	1 EA
Four	Nasogastric Tubing: 12FR	1 EA
	Nasogastric Tubing 14 Fr	1 EA
Five	Airway, 7cm Oral	1 EA
Six	Pediatric Non-Rebreather Mask	1 EA
Six	Cannula, Pediatric Nasal	1 EA
	Chest Tube 24 Fr	1 EA
	Chest Tube 32 Fr.	1 EA

DRAWER SEVEN (ORANGE) CONTAINS:

Section	Items Description:	Quantity
One	Angiocatheters size: 20G x 1¼ and 22G x 1	2EA
Two	Tape, 1 inch Transpore	1 EA
Two	Alcohol Pad	10 EA
Three	Armboard, Sm.	1 EA
Three	IV Start Pack	2 EA
Three	Extension Set	1 EA
Three	Dressing, Transparent – 3M Tegaderm	1 EA
Four	Foley Catheter: 10FR, 12FR	1 EA
Four	Suction Catheter, 10FR	1 EA
Four	Nasogastric Tubing: 14FR	1 EA
	Nasogastric Tubing 18 Fr	1 EA
Five	Airway, 8cm Oral	1 EA
Six	Pediatric Non-Rebreather Mask	1 EA
Six	Cannula, Pediatric Nasal	1 EA
	Chest Tube 28 Fr.	1 EA
	Chest Tube 32 Fr.	1 EA

ATTACHMENT B continued - PEDIATRIC CODE CART CONTENTS
2/1/2012

DRAWER EIGHT (GREEN) CONTAINS:

Section	Items Description:	Quantity
One	Angiocatheters size: 20G x 1 ¼ and 18G x 1¼	2 EA
Two	Tape, 1 inch Transpore	1 EA
Two	Alcohol Pad	10 EA
Three	Armboard, Sm.	1 EA
Three	IV Start Pack	2EA
Three	Extension Set	1 EA
Three	Dressing, Transparent	1 EA
Four	Foley Catheter, 12FR	1 EA
Four	Suction Catheter, 12FR	1 EA
Four	Nasogastric Tubing: 14FR, 18FR	1 EA
Five	Airway Oral: 8cm and 10cm	1 EA
Six	Pediatric Non-Rebreather Mask	1 EA
Six	Cannula, Adult Nasal	1 EA
	Chest Tube 32 Fr	1 EA
	Chest Tube 38 Fr.	1 EA

BOTTOM DRAWER CONTAINS:

Section	Items Description:	Quantity
One	SmartSite Burette Set	2 EA
One	Infusor Bag, 500cc	1 EA
One	Central Line Kit	1 EA
One	Bone Marrow Biopsy NDL (15G Jamshidi)	2 EA
Two	Pulse Oximeter, Disposable - Pediatric	2 EA
Two	Pulse Oximeter, Disposable - Newborn	2 EA
Two	Pacing Defibrillator/ECG Electrodes, Pediatric (Quick Combo Pads)	2 PK
Three	ABG Kits	2 EA
Three	Syringes, 1mL 27g x ½ (Vanish Point)	3 EA
Three	TB Syringe, 1 mL	5 EA
Three	Syringe, 20 mL	2 EA
Four	**Blood Collection Kit containing:**	1PK
	1 EACH: NDL, Butterfly - 23G x ¾ 1 EACH: Chloroprep Swabstick 2 EACH: Gauze, Sterile 2 x 2 2 EACH: Tube Vacutainer Lavender 2 EACH: Microtainer, Red Top 2 EACH: Microtainer, Yellow Top	
Four	Biohazard Bag	2 EA
Five	Infant Heal Warmer	2 EA
Five	Instant Hot Packs	2 EA
Five	Urine Meter, Pediatric	1 EA
Five	U-Bag, Newborn	1 EA
Five	U-Bag, Pediatric	1 EA
Five	Infant Hats	2 EA
Five	Heel Lancet (Tenderfoot)	2 EA
Five	BP Cuff, Infant	1 EA
Five	BP Cuff, Child	1 EA
Five	BP Cuff, Small Adult	1 EA
	Shiley Pediatric Tracheostomy Tubes3.0	1 EA
	Shiley Pediatric Tracheostomy Tube 3.5	1 EA
	Shiley Pediatric Tracheostomy Tube 4.5	1 EA
	Shiley Pediatric Tracheostomy Tube 5.0	1 EA
	Shiley Pediatric Tracheostomy Tube 5.5	1 EA
	Pediatric Tracheostomy Tray	1 EA
	Pediatric Thoracotomy Tray	1 EA

ATTACHMENT B continued - PEDIATRIC CODE CART CONTENTS
2/1/2012

TOP OF CART:	
Items Description:	**Quantity**
Bag Ambu Infant	1
Bag Ambu Pediatric	1
Mask, Infant	1
Mask, Child	1
Mask, Small Adult	1

ORANGE CODE BOX:	
Items Description:	**Quantity**
Atropine 0.1 mg/mL, 10 mL LS syringe	1
Calcium chloride 10%, 10 mL LS syringe	1
D25W, 10 mL LS syringe	1
Dobutamine 2 mg/mL, 250 mL premix (500 mg/250 mL)	1
Dopamine **800** mcg/mL, 250 mL premix (200 mg/250 mL)	1
Epinephrine 1:10,000, 10 mL LS syringe	2
Naloxone 0.4 mg/mL, 1 mL vial	1
Sodium Bicarbonate 8.4%, 50 mL LS syringe	2
Sodium Chloride 0.9%, 3 mL PF syringe	3
Sodium Chloride 0.9%, 250 mL	1
D50W, 50 ml LS syringe	2
Sodium Chloride 0.9%, 20 ml vial, PF	3
Magnesium Sulfate 50%, 2 mL vial (500mg/mL, 4mEq/mL)	4
Chloraprep Swab Sticks 3 ml	6

ATTACHMENT C

NEONATAL CODE CART CONTENTS
2/1/2012

DRAWER ONE CONTAINS:	
Items Description:	**Quantity**
Kelly Clamp	1
Bandage Scissors	1
Atropine 0.1 mg/mL, 10 mL LS syringe	1
Calcium chloride 10%, 10 mL LS syringe	1
D25W, 10 mL LS syringe	1
Dobutamine 2 mg/mL, 250 mL premix (500 mg/250 mL)	1
Dopamine **800** mcg/mL, 250 mL premix (200 mg/250 mL)	1
Epinephrine 1:10,000, 10 mL LS syringe	2
Heparin Lock Flush 10 units/ml, 3 ml PF syringe	3
Naloxone 0.4 mg/mL, 1 mL vial	1
Vitamin K 1 mg/0.5 mL	1
Sodium Bicarbonate 4.2%, 10 mL LS syringe	2
Sodium Chloride 0.9%, 3 mL PF syringe	3
Water for Injection, 20 mL PF vial	2
D10W, 500 mL	1
Sodium Chloride 0.9%, 250 mL	1
DRAWER TWO CONTAINS:	
Items Description:	**Quantity**
1mL Syringes	6
1mL 27g x ½ Syringes (Vanish Point)	3
3mL syringes	6
6mL syringes	6
12mL syringes	4
20mL syringes	10
30mL syringes	2
20g Hypo needles	10
23g x ¾ Butterfly needles	3
24g x ⅝ Angiocatheters	3
Three Way Stopcocks	3
SmartSite Burette Set	2
Administration Set	2
SmartSite Extension Set	2

NEONATAL CODE CART CONTENTS CONTINUED NEXT PAGE

ATTACHMENT C continued - NEONATAL CODE CART CONTENTS
2/1/2012

DRAWER THREE CONTAINS:	
Items Description:	**Quantity**
Band-Aids spots	6
Band-Aids, regular	6
Neonatal BP Cuffs sizes: 2.5cm, 3.0cm, 4.0cm, 5.0cm	1 each
Blood Culture bottles	2
Blood Gas syringes	3
Transparent Dressing - Tegaderm 3M	2
Tape 1 each: 1inch Transpore and 1 inch Cloth	2
Rubber Bands Size: 18	6
Chloroprep Swabsticks	3
Infant Heal warmer	2
Instant Hot Packs	2
Extension Sets: 20039E and 20019E, 2 each	4
2x2 Sterile gauze	6
Identification Labels	2
Biohazard Bags	2
Blood Tubes, 2 each: lavender top, red top tube, blue top, green top	8
Alcohol Wipes	20 each
Tenderfoot	3
DRAWER FOUR CONTAINS:	
Items Description:	**Quantity**
Limb Holders	4
Measuring Tape	1
Pressure Monitoring Kit	1
Sterile Surgical Gown	1
Sterile Gloves size: 7, 7 ½, 6, 6 ½	2 each
Dual Lumen Umbilical Catheter size: 3.5 FR and 5 FR	2 each
Umbilical Catheter size: 3 FR and 5 FR	2 each
Infant Hats	2
DRAWER FIVE CONTAINS:	
Items Description:	**Quantity**
Meconium Aspirator	1
Suction Catheters size: 5FR, 8FR, 10FR	2 each
Neonatal Sensor	1
Needle Aspiration Kit	2
Mask size: Preemie, Newborn, Infant (Vent Mask)	1 each
8FR Feeding Tube	1
Infant Nasal Cannula	1

Attachment D – Difficult Intubation Tray Contents
12/8/2011

Adult Side	Pediatric Side	LMA'S
Supplies	**Supplies**	**LMA'S**
Endotracheal Tubes, Size 6 (2)	ET Tubes, Size 3 (2) uncuffed	LMA #3 (2)
Endotracheal Tubes, Size 7 (2)	ET Tubes, Size 3.5 (2) uncuffed	LMA #4 (2)
Endotracheal Tubes, Size 8 (2)	ET Tubes, Size 4 (2) uncuffed	
ABG Stick Kits (3)	ET Tubes, Size 4.5 (2) uncuffed	
Stubby Laryngoscope Handle (1)	ET Tubes, Size 5 (2) uncuffed	
Adult Laryngoscope Handle (1)	ET Tubes, Size 5.5 (2) uncuffed	
Laryngoscope Blades, Miller, straight, Size # 3 (1)	ET Tubes, Size 6 (2) cuffed	
Laryngoscope Blades, Miller, straight, Size # 4 (1)	Cook Airway Exchange Catheter (YELLOW) (1)	
Laryngoscope Blades, McIntosh, curved Size # 3 (1)	Pediatric Laryngoscope Handle	
Laryngoscope Blades, McIntosh, curved Size # 4 (1)	Laryngoscope Blade, Miller Size # 1 (1)	
Package Soluble Lubricant (2)	Laryngoscope Blade, Miller Size # 2 (1)	
Adult Stylus (1)	Laryngoscope Blade, McIntosh curved Size #2 (1)	
Roll Cloth, Adhesive Tape 1" (1)	Pediatric Stylet (1)	
Spare Batteries "C" (2)	Child Magill Forcep (1)	
Adult Magill Forcep (1)	K-Y Jelly (4)	
Xylocaine Jelly, tube (1)	Sterile 4x4 (1)	
Sterile 4x4 (1)	10 cc Syringe (1)	
Plastic Bag (1)	Plastic Bag (1)	
Disposable Gloves, Sterile (1)	Disposable Gloves, Sterile (1)	
Disposable Globes, Non-Sterile (1)	Disposable Globes, Non-Sterile (1)	
Adult CO2 Detector (1)	Pediatric CO2 Detector (1)	
Yankauer Tube (1)	Xylocaine Jelly, tube (1)	
Normal Sterile Saline (4)	Normal Sterile Saline (4)	
Oral Airway, Large	Roll Cloth, Adhesive Tape 1" (1)	
Oral Airway, Medium	Spare Batteries "AA" (4)	
Oral Airway, Small	10 Fr Suction Kit	
14 Fr Suction Kit	8 Fr Suction Kit	
15 Fr Bougie Introducer (BLUE)	Stubby Adult Laryngoscope Handle (1)	

Attachment E: Adult Endotracheal IntubationTray Contents
2/1/2012

Endotracheal Tubes, Size 6 (1)
Endotracheal Tubes, Size 7 (2)
Endotracheal Tubes, Size 8 (2)
ABG Sticks (3)
Laryngoscope Handle (1)
Laryngoscope Blades, Miller, straight, Size # 3 (1)
Laryngoscope Blades, Miller, straight, Size # 4 (1)
Laryngoscope Blade, Curved # 4
Laryngoscope Blades, McIntosh, curved, Size 3.5 (1)
Package Soluble Lubricant (2)
Stylus (1)
Roll Cloth, Adhesive Tape 1" (1)
Spare Batteries (2)
Magill Forcep (1)
10 cc Syringe (1)
Xylocaine Jelly, tube (1)
Sterile 4 x 4 (1)
Plastic Bag (1)
Disposable Gloves, Sterile (1)
Disposable Gloves, Non-Sterile (1)
CO_2 Detector
Yankauer Tube (1)
Normal Sterile Saline (4)
Oral Airway, Large
Oral Airway, Medium
Oral Airway, Small
Suction Catheter

Attachment F: Pediatric Endotracheal Intubation Tray Contents
2/1/2012

Supplies
Pediatric Handle
Straight blade, 1 (Miller)
Straight blade, 2 (Miller)
Straight blade, 00 (Miller)
Straight blade, 0 (Miller)
Curved blade, 1 (Mac)
Curved blade, 2 (Mac)
Pediatric CO_2 Detector
(2) ET tubes, 2.5
(2) ET tubes, 3
(2) ET tubes, 3.5
(2) ET tubes, 4
(2) ET tubes, 4.5
(2) ET tubes, 5
(2) ET tubes, 5.5
(2) ET tubes, 6
Stylet, Pediatric
Stylet, Adult
(4) K-Y Jelly
4 x 4 gauze sponge
10 cc syringe
Disposable Gloves, Sterile
Disposable Gloves, Non-Sterile
Batteries (AA)
Forceps (child magill)
Tape
Xylocaine
Yankauer
Plastic bag
Normal Saline (2)

Attachment G: Neonatal Endotracheal Intubation Tray Contents
2/1/2012

Supplies
Pediatric Handle
Straight Blade # 00 (Miller)
Straight Blade # 0 (Miller)
Straight Blade #1 (Miller)
(2) ET Tubes # 2.5
(2) ET Tubes # 3.0
(2) ET Tubes # 3.5
(2) ET Tubes # 4.0
Pediatric Stylet # 6
Non-Sterile Gloves
(4) Spare Batteries AA
Plastic Bag
Pediatric CO_2 Detector
1” Cloth Tape
(1) Scissors

WASHINGTON ADVENTIST HOSPITAL
RESPIRATORY CARE POLICY MANUAL

CLEANING and PROCESSING Respiratory Equipment

Effective Date:	9/94	**Policy No: 219**
Cross reference:	IC WAH.7031, IC WAH.7402C	Origin: RCC
Reviewed:	12/00, 8/02, 6/06, 1/07, 10/08	Approved: PMD
Revised:	2/97, 6/04, 2/10	**Page: 1 of 3**

PURPOSE:

To insure optimal infection control and quality control standards and prevent cross contamination of non disposable respiratory equipment.

POLICY:

1. All processing and preparation of reusable respiratory equipment will be done in the respiratory equipment area. Further sterilization, if required will be completed in either central processing or surgery processing.
2. Respiratory Equipment Technicians are primarily responsible for cleaning and processing equipment with Respiratory Care Practitioners as a back up.
3. Universal precautions are used when processing respiratory equipment.
4. All contaminated equipment is to be taken into the respiratory department through the "contaminated" door and cleaned in the contaminated room. All clean equipment is to be taken out through the door going into the clean side for final processing.
5. Clean work surfaces will be maintained. The dryer will be cleaned in January and June each year using a detergent mixture.
6. A detergent mixture will be mixed when needed. The detergent mixture will be replaced at the beginning of each 8 hour shift as needed.
7. All exterior surfaces of ventilators and Bipap machines will be wiped down with hospital approved germicidal wipes while in the patient's room prior to transporting to the respiratory department.
8. Disposable respiratory equipment and ventilator circuits are to be changed when visibly soiled.

PROCEDURE:

1. Reusable nebulizers:
    a. A collection of several nebulizers will be made prior to cleaning process.
    b. Separate all parts and spray with enzymatic solution.
    c. Rinse with water and shake dry of excess water.
    d. Transport to central processing for autoclave sterilization.
    e. Use equipment tracking form.
2. Reusable GE flow transducers:
    a. A collection of several flow transducers will be made prior to cleaning process.
    b. Separate all parts and soak in hospital approved high foam pH neutral detergent

mixture (2 tablespoons of said detergent mixed in 1 gallon of warm water) for a minimum of 10 minutes.

c. Gently agitate in clear water until suds free. Shake free of standing water.

d. Wipe outside with disposable cloth containing ethyl alcohol.

e. Allow parts to air dry prior to reassemble and placement in approved plastic bag for storage.

3. Laryngoscope blades:
   a. Collection of several blades will be made prior to cleaning process.
   b. Spray with enzymatic solution and scrub to loosen and remove debris to prepare for sterilization in the operating room blade cleaning system (Operating Room Steris Procedure 4914).
   c. Use equipment tracking form.
   d. Pick up sterilized blades and complete equipment tracking form.
   e. Test for bulb function and seal individually in approved plastic bags for storage.
4. Work surface cleaning:
   a. Wipe down work surface areas with hospital approved germicidal wipes daily prior to processing equipment.
   b. Remove trays and wipe down equipment dryer inside and out as needed with hospital approved cleanser. Documentation will be made in the blade tracking book.
5. Ventilator (including BIPAP machines) cleaning:
   a. A ventilator is ready for the cleaning process when the disposable tubing has been removed.
   b. Prior to removing the equipment from a room, all ventilators will be wiped down with a hospital approved germicidal wipe including the outside of the machine, the hoses and the outside of the flow transducer.
   c. All surface areas, cubbies and hoses on the ventilator will be wiped down again in the equipment area with a hospital approved germicidal wipe prior to setting up each ventilator.
   d. Ventilators will be stored in the clean equipment area set up and covered with a plastic bag.
6. Individual Pulse Oximeters are to be wiped with alcohol or hospital approved germicidal wipes between patients.
7. Respiratory Care Practitioners are responsible for inspecting processed equipment prior to use.
8. All equipment cleaning changes are made in collaboration with the Infection Control

CLEANING and PROCESSING Respiratory Equipment

Effective Date:	9/94	**Policy No: 219**
Cross reference:	IC WAH.7031, IC WAH.7402C	Origin: RCC
Reviewed:	12/00, 8/02, 6/06, 1/07, 10/08	Approved: PMD
Revised:	2/97, 6/04, 2/10	**Page: 3 of 3**

Department.
Reference: AARC and CDC Guidelines for VAP 2003

Effective 2/2010: This policy revision incorporates:
Respiratory Equipment Processing procedure 33.
Cleaning equipment policy 215

WASHINGTON ADVENTIST HOSPITAL
RESPIRATORY CARE POLICY MANUAL

PREVENTIVE MAINTENANCE OF RESPIRATORY EQUIPMENT

Effective Date:	5/87	**Policy No: 901**
Comments:		Origin: RCC
Reviewed:	6/89, 3/92, 6/04, 1/07	Approved: PMD
Revised:	5/91, 11/93, 8/94, 2/97, 3/13	**Page: 1 of 1**

PURPOSE

To define the responsibilities for maintenance and preventive maintenance of respiratory equipment.

POLICY

The preventive maintenance (PM) on respiratory equipment is performed on an annual basis. A preventive maintenance schedule consists of a complete electrical and functional check with replacement and/or calibration of crucial parts.

The Biomedical Department performs the electrical checks on all of the equipment and preventive maintenance of all ventilators within the Manufacturer's Guidelines along with all other machinery not classified as a ventilator.

Records of such repairs or preventive maintenance checks are kept both in the Pulmonary Medicine and Biomed Departments. The Biomed department will notify and coordinate with respiratory management as to when preventive maintenance is due on specific equipment.

WASHINGTON ADVENTIST HOSPITAL
RESPIRATORY CARE POLICY MANUAL

MECHANICAL HAZARDS: SAFETY MEASURES

Effective Date:	7/30/91	**Policy No: 601**
Comments:		Origin: RCC
Reviewed:		Approved: PMD
Revised:	1/93, 2/97, 6/04, 1/07, 3/13	**Page: 1 of 1**
Cross Reference:	WAH.3418	

PURPOSE:

The purpose of this policy is to inform all personnel of the practices to follow in the control of mechanical hazards.

POLICY:

1. The setting up, operating, and maintaining of respiratory equipment shall be done only by those personnel qualified to do so.

2. Defective equipment shall be immediately removed from service and properly labeled.

3. Equipment shall be serviced by qualified personnel only. In most cases, equipment is serviced by the hospital Clinical Engineering Department or sent back to the Manufacturer as determined by the Clinical Engineering Department.

4. Plant Operations conducts periodic checks (quarterly) on our central piping system to assure the pressure is 50 psi.

5. Turn off all electrical equipment prior to doing any maintenance or repair on it.

6. Safety relief mechanisms, non-interchangeable connectors and other safety features shall not be removed, altered, or replaced.

7. The Clinical Engineering Department does preventive maintenance on a scheduled basis as well as a prn basis.

WASHINGTON ADVENTIST HOSPITAL
RESPIRATORY CARE POLICY MANUAL

MALFUNCTIONING RESPIRATORY CARE EQUIPMENT

Effective Date:	1/1/90	**Policy No: 903**
Comments:		Origin: RBC
Reviewed:	6/04, 1/07, 9/10, 3/13	Approved: PMD
Revised:	5/91, 11/93, 8/94, 2/97	**Page: 1 of 1**

PURPOSE

To establish guidelines for processing malfunctioning Respiratory Care equipment.

POLICY

Respiratory Care equipment that malfunctions while in use will be removed at once, and a RCP will transport it to the Pulmonary Medicine Department for further evaluation. Malfunctioning Respiratory Care equipment will be tagged, indicating date, time, problem that occurred and signature of RCP filling out the “Defective - Do not Use” sticker.

Malfunctioning Respiratory Care equipment will be evaluated and repaired by Biomed Service.

WASHINGTON ADVENTIST HOSPITAL
HOSPITAL SAFETY MANUAL

UTILITY OUTAGE PLAN

Effective Date: 10/79 **Policy No: EOP Appendix R**
Cross Referenced: 3928 Origin: PO
Reviewed: (Combined 3500, 3501, 3520, 3560), 3/82, 12/89, 6/91 Authority: SM
Revised: 3/85, 7/95, 4/98, 8/00, 11/03, 07/04, 6/05, 7/07, 6/10, 6/12 , 4/13 **Page: 1 of 9**

SCOPE

This policy applies hospital wide.

PURPOSE

In the event of a utility shortage or outage, it is essential that the Hospital be prepared to respond immediately. The following plan has been developed in order to provide the direction necessary to meet this type of emergency.

EMERGENCY PROCEDURES

The following procedures cover actions to be taken in case of utility-related equipment and/or system failures, as well as plans for alternate sources for essential utilities. These procedures cover actions to be taken by Plant Operations to diagnose system failures, action to be taken to compensate for loss of utility, and who to contact when outside assistance is needed to facilitate repairs. Department-specific policies and procedures will address actions necessary to compensate for the loss of critical utility systems to ensure staff, patients and visitor safety. See Appendix A: Systems Failure & Basic Staff Response, and Appendix B: Clinical Department Utility Outage Procedures for ICU's, IMCU, Cardiac Step-Down, Medical-Surgical Units, SSU & PACU.

CONTENTS

I. ELECTRICAL OUTAGE

A. **NORMAL POWER SUPPLY**

The Hospital receives its central main power supply from Potomac Electric Power Company (PEPCO).

B. **EMERGENCY POWER SUPPLY**

In the event that there is a loss or shortage of electrical power supply due to an operational problem with PEPCO, the hospital has two (2) diesel generators of 350 KW each, one (1) 310 KW for critical loads and one (1) turbine generator of 800 KW capacity for non-critical loads for a total emergency/backup electrical power capacity of 1810 KW.

C. **DISTRIBUTION OF EMERGENCY POWER**

1. Areas supplied by emergency power include, but are not limited to:

   a. Alarm systems
   b. Exit route illumination
   c. Emergency communication systems
   d. Illumination of exit signs
   e. Blood, bone and tissue storage units

f. Emergency/urgent care areas
g. Elevators (all banks)
h. Medical air compressors
i. Medical and surgical vacuum systems
j. Operating rooms
k. Postoperative recovery rooms
l. Special care units - ICU, CCU, Emergency Department
m. Steam delivery system (at least one boiler)
n. Obstetrical delivery rooms
o. Newborn nurseries

2. Emergency Power outlets are red, or are indicated as such. These may experience 10 second interruptions.

3. In some areas blue UPS outlets are available for specific power sensitive equipment.

D. **ELECTRICAL OUTAGE PROCEDURES**

Pepco provides electric power to Washington Adventist Hospital by means of two separate feeders. Feeder #1 is the essential feeder. In the event of an outage on one of the feeders (#1 or #2), a tie breaker connects all loads to the energized feeder. In the event of an outage of the feeders, the three 10 second emergency generators located in the Mechanical Building will start and load automatically, and provide distribution of power to all emergency power areas. If both feeders fail, the turbine generator which provides back-up power to non-critical areas starts automatically and the loads are manually transferred by the power plant engineer when the “Diesel Generator Running and Loading” indicator light is illuminated.

1. **Loss of Power - External - Day Shift**

a. Electricians

1) 1 electrician reports to the Power Plant

2) 1 electrician reports to the 10-second emergency generator room (to monitor loads & ensure generators stay on line).

3) 1 electrician reports to LL3 to shed and/or juggle loads.

b. PEPCO will be notified by an electrician via Emergency #301-469-5525.

c. The Executive Director of Plant Operations/Facilities Management and the Director of Safety will be notified and kept informed by the Electricians.

d. Plant Operations will notify the Administrator On-call (AOC) and Administrative Supervisor.

e. The Administrative Supervisor will notify staff, and policies and procedures including Clinical Interventions will be implemented as necessary.

f. When power is restored to the normal feeders, the electrician in the Power Plant will return the system back to normal mode and shut down the Turbine Generator. The 10-second generators shut down automatically.

2. **Loss of Power - External - Night Shift**

   a. The electrician on-call will be contacted by Telecommunications staff or Power Plant staff. The electrician reports to the hospital to monitor loads and ensure the generators stay on line.

   b. The on-call electrician will call in additional electricians, if needed.

   c. PEPCO will be notified by an electrician via Emergency #301-469-5525.

   d. The Executive Director of Plant Operations/Facilities Management and the Director of Safety will be notified and kept informed by the electricians.

   e. The Administrative Supervisor and the AOC will be notified by an electrician, informed of the problem and will receive information updates as necessary.

   f. The Administrative Supervisor will notify staff and policies and procedures including clinical Interventions will be implemented as necessary.

   g. When power is restored to the normal feeders, the Electrician in the Power Plant will return the system back to normal mode and shut down the Turbine Generator. The 10 second generators shut down automatically.

3. **Loss of Power - Internal - Day Shift**

   a. In the event of a loss of power, report the problem by contacting Plant Operations Service Desk ext. 5648.

   b. Electrician is notified and responds to assess the outage.

   c. The Executive Director of Plant Operations/Facilities Management and the Director of Safety will be notified and kept informed by the electrician.

   d. Plant Operations will notify the AOC and Nursing Coordinator.

   e. The Administrative Supervisor will notify staff and policies and procedures including Clinical Interventions will be implemented as necessary.

   f. Repairs will be made by the Electrician(s). Outside contractor assistance will be utilized as needed. (Refer to Plant Operations “Emergency Service Telephone Numbers Call List” E-4-1 and/or Command Center Disaster Manual as necessary.)

4. **Loss of Power - Internal - Night Shift**

   a. In the event of a loss of power, contact the Power Plant Engineer at #5129 or by in-house pager #138.

   b. If needed, the Power Plant engineer will contact the on-call electrician.

   c. The Electrician will direct the Power Plant engineer in an attempt to correct the problem.

   d. The Executive Director of Plant Operations/Facilities Management and the Director of Safety will be notified and kept informed by the electrician.

e. An electrician will contact the AOC and Administrative Supervisor.

f. The Administrative Supervisor will notify staff and policies and procedures including Clinical Interventions will be implemented as necessary.

g. If necessary, the on-call electrician will respond to assess and/or make repairs. Outside contractor assistance will be utilized as needed. (Refer to Plant Operations "Emergency Service Telephone Numbers Call List" E-4-1 and/or Command Center Disaster Manual as necessary.)

II. WATER OUTAGE

A. NORMAL WATER SUPPLY

The Hospital receives its water supply from the Potomac Filtration Plant, which is managed by the Washington Suburban Sanitary Commission (WSSC). The hospital uses approximately 80,000 gallons of water daily.

B. EMERGENCY WATER SUPPLY

1. In the event of a water shortage or outage, the AOC will authorize implementation of this plan. Emergency supplies of water will be coordinated through Plant Operations in conjunction with outside water supply vendor. The phone reference list is available through Plant Operations.

2. The Montgomery County Department of Emergency Management (DEM) can be contacted to help with certain emergency services. DEM can be reached during regular business hours (Monday - Friday 0800-1630 hrs) at 240-777-2300. If during non-business hours, advise the Montgomery County Communications Center via the direct line located in Security Control or ED that you need to speak to the DEM representative. The DEM representative will confirm the emergent need and determine what assistance they can offer. Outside contractor assistance will be utilized as needed. (Refer to Plant Operations "Emergency Service Telephone Numbers Call List" E-4-1 and/or Command Center Disaster Manual as necessary.)

3. If the water supply to the Power Plant or main facility fails, the hospital will contact an outside water supply vendor (Emergency Service Telephone Numbers Call List) and request a tanker truck of non-potable water to provide water for chillers and or boilers. Fire and Rescue may also be contacted to determine if tanker truck is available. Water feeds are accessible at the front entrance of the hospital, the Power Plant, and in the rear of Generator building

C. DISTRIBUTION OF WATER SUPPLY

1. In the event of a water shortage or outage, the following procedures should be implemented immediately:

   a. Physical Medicine will cease hydrotherapy functions.

   b. Nursing units will restrict patient showers and the use of the Jacuzzi on the Maternal Child Unit.

   c. Restrooms will be closed on corridors, except one on each floor. The number of commodes in use will be minimized.

d. Dietary will restrict its use of water by using paper products and/or other disposables. Emergency potable water stored in Food Service will be utilized for food prep on conservative levels as needed.

e. All water coolers will be turned off.

f. Sterile Processing will restrict its use of water. Surgical Services may need to discontinue use of their sterilizers, as they use a continuous flow of water.

2. Emergency containers of water ~~stored in Laundry and storage area~~ will be placed in pre-designed locations throughout the hospital.(See Command Center Disaster manual for supply inventory levels and locations)

a. Containers will be labeled as either potable or non-potable water. Non-potable water should be reused when possible (e.g., flushing toilets).

b. Water usage will be monitored by Plant Operations personnel throughout the emergency. Water supplies will be replenished as authorized by the Plant Operations Supervisor or designee.

c. Distribution of the emergency water will be coordinated by the Facility / Safety Director via the Command Center.

D. DEPARTMENTAL PLANS - WATER OUTAGE

Plant Operations will maintain a plan of action for a water outage. All departments using water as a part of their service will determine their needs and develop a plan to conserve water in the event of a water shortage or to alter functions in the event of an outage.

If the water outage is severe or prolonged and the AOC authorizes evacuation, plans for the evacuation outlined in the Hospital Patient Relocation and Evacuation Plan are to be followed.

III. FUEL OUTAGE - HEAT, HOT WATER, STEAM

A. **NORMAL FUEL AND/OR GAS SUPPLY**

The Hospital has contracted service from a fuel and gas supplier to provide ample fuel and gas for operations. The fuel and gas supply is monitored and used by personnel in the Power Plant Building on Hospital premises. The Hospital's fuel tanks have a capacity of 20,000 gallons. The maximum average daily use of fuel is approximately 3,200 gallons.

B. **EMERGENCY FUEL SUPPLY**

The Hospital burns natural gas. Gas is the hospital's main fuel supply. At the loss of natural gas, the Power Plant personnel will switch burners to #2 fuel oil.

C. **DISTRIBUTION OF FUEL SUPPLY**

1. The fuel supply is used to provide heat, steam, and hot water to the Hospital.

2. In the event of a gas shortage, #2 fuel oil will be used. If for any reason this is not possible, the following measures and others as indicated may be taken to conserve fuel:

   a. Reduce the hours of operation of Sterile Processing

   b. Transfer some or all patients from one unit to another. Cut off heat and/or hot water to unoccupied areas.

   c. Alternate air handlers in operation that channel heat or air conditioning so that fuel is conserved, yet a comfortable room temperature is maintained.

   d. Dietary will use paper products and/or other disposables.

   e. The AOC will prioritize what areas should receive heat and/or hot water when there is a fuel and/or gas shortage.

D. **EXTERNAL AGENCIES - FUEL OUTAGE**

If a fuel and/or gas shortage is either severe or prolonged, the AOC may determine that evacuation is necessary. If so, assistance should be sought from area hospitals.

E. **DEPARTMENTAL PLANS - FUEL OUTAGE**

1. Power Plant personnel, in cooperation with HVAC personnel, will maintain a plan of action for a fuel and gas shortage.

2. All departments will follow their plans for evacuation (see Hospital Patient Relocation and Evacuation Plan - Appendix D of this Manual) in the event the AOC authorizes an evacuation.

IV. MEDICAL GAS OUTAGE PROCEDURES

A. If the main supply of oxygen or nitrous oxide is depleted, the system will automatically transfer to the reserve supply. This transfer will trigger an alarm at the Telecommunications annunciator panel. High or low pressure will also trigger an alarm. The hospital operator will immediately notify Respiratory Care and HVAC for an oxygen alarm and HVAC for a nitrous oxide alarm. The HVAC technician on-call will replace the empty bank of nitrous oxide cylinders.

B. The HVAC tech on-call will access the problem and correct as necessary. In the event of a failure in the main and reserve oxygen supply, Roberts Oxygen, 301-948-8100, can supply oxygen from a tanker truck to the “Emergency Low Pressure Gaseous Oxygen Inlet” at the rear of the building. Within the building, individual zones can be valved off and backfed from portable tanks. HVAC will coordinate with Respiratory Care during any outage and also notify the AOC, the Administrative, the Executive Director of Plant Operations/Facilities Management and the Director of Safety.

C. In the case of an event where oxygen is not available through normal means, the system can not be back-fed, and manual ventilation must occur,

   a. Respiratory Therapy will access the Work List, which identifies all ventilated patients and their location
   b. Each Respiratory Therapist will coordinate with the nursing staff in their pre-assigned area to make sure patients in need of ventilation are manually ventilated / “bagged” by staff.
      i. A cache of portable ventilators are kept on WAh campus as well as in the off-site warehouse (please see Emergency Inventory).
      ii. Areas where ventilated patients will be located are:

1. All ICU's
2. The Emergency Department
3. Cath Labs
4. Labor and Delivery
5. Nursery
6. Surgical Services*

* The anesthesiologists in the OR will administer manual ventilation/ "bagging" of patients, and will request assistance if necessary.

c. For Med/Surge, Inpatient, and other clinical areas where patients may be using Bipap's, Oxygen cylinders connected to Non-Rebreather Masks may be used.

V. HVAC OUTAGE AND AIRFLOW CHANGE PROCEDURES

A. The hospital is supported by an HVAC (Heating Ventilation & Air Conditioning) system consisting of Chillers, Pumps and Cooling towers for cooling and Boilers for heating located at the Central Plant and Air Handling Units (AHU) for distribution throughout the hospital. If disruptions or failures occur to the HVAC system, immediately notify Plant Operations at extension x5648. Plant Operations (HVAC) personnel will make an assessment and necessary corrective actions. They will inform effected department(s) and/or Administrator Supervisor of a timeline completion for repairs. After normal work hours, immediately call the Power Plant at extension x5129 who will make the initial assessment and re-call the on-call HVAC Mechanic, if needed. If delays occur in reaching the Power Plant Stationary Engineer, call the on-call HVAC Mechanic via the Hospital operator.

B. A number of patient care rooms are designated as "negative pressure rooms" to control airborne contamination. Depending on the situation and after conferring and approval from the Director of Safety and Infection Control Manager, the ventilation airflow can be converted to "negative pressure" for a specific room or area or department by immediately calling the HVAC Supervisor at extension x5648 or pager 301-224-5475. If unable to reach the HVAC Supervisor or Exec Dir of Plant Operations/Facility Mgmt, call our HVAC Controls Contractor, Invensys-Pritchard at 301-470-7300. Invensys-Pritchard is able convert the airflow to "negative pressure" for a specific room or area via online.

Appendix A: Systems Failure & Basic Staff Response
Appendix B: Clinical Department Utility Outage Procedures for ICU's, IMCU, Cardiac Step-Down, Medical-Surgical Units, SSU & PACU.

Washington Adventist Hospital

Systems Failure & Basic Staff Response

Failure of:	What to Expect:	Responsibility of Use:	Who to Contact:
Computer Systems	System Down	Use backup manual/paper systems	• Information Systems
Electrical Power Failure – Emergency Generators Work	Many lights are out; only RED plug outlets work	Ensure that life support systems are on emergency power (red outlets). Ventilate patients by hand as necessary. Complete cases in progress ASAP. Use flashlights.	• Plant Operations • Respiratory Care
Electrical Power Failure – Total	Failure of all electrical systems	Utilize flashlights. Hand ventilate patients. Manually regulate IV□s; don't start new cases.	• Plant Operations • Respiratory Care
Elevators Out of Service	All vertical movement will have to be by stairwells	Review fire and evacuation plans. Establish services on first or second floor. Use carry teams to move critical patients and equipment to other floor. Food service transportation in bulk to floors and distribute.	• Plant Operations • All Directors • Security
Elevators Stopped between floors	Elevator alarm bell sounding	Keep verbal contact with persons still in elevator and let them know help is on the way.	• Plant Operations • Security
Fire Alarm System	No fire alarms or sprinklers	Institute Fire Watch. Minimize fire hazards. Use phone or runners to report fire.	• Plant Operations • Security
Medical Gases	Gas alarms, No 0_2 or medical air or Nitrous Oxide (NO_2)	Hand ventilate patients. Transfer patients, if necessary, use portable 0_2 and other gases. Call for additional portable cylinders.	• Plant Operations • Respiratory Care
Medical Vacuum	No medical vacuum; vacuum systems fail and in alarm	Call Sterile Processing for portable vacuum. Obtain portable vacuum from crash cart. Finish cases in progress, don't start new cases.	• Plant Operations • Respiratory Care • Sterile Processing • Safety Officer
Natural Gas Failure or Leak	Odor, no flames on burners, etc.	Turn off gas equipment. Don't use any spark-producing devices, electrical motors, switches, etc.	• Plant Operations • Security
Nurse Call System	No patient call system	Use bedside patient telephone, if available. Move patients. Detail a rover to check patients.	• Plant Operations
Patient Care equipment/ Systems	Clinical Equipment does not function properly	Replace and tag defective equipment or move the patient as appropriate.	• Clinical Engineering
Sewer Stoppage	Drains backing up	Do not flush toilets. Do not use water.	• Plant Operations
Steam Failure	No building heat/hot water; sterilizers inoperative; limited cooking	Conserve sterile materials and all linens. Provide extra blankets. Prepare cold meals.	• Plant Operations • Food Service
Telephones	No phone service	Use emergency bypass phones, pay phones, radios, and cellular phones. Use runners as needed.	• Information Systems: • Telecommunications
Water (Potable)	Tap water unsafe to drink	Place "non-potable water - do not drink" signs at all drinking fountains and wash basins. Use bottled water for drinking.	• Plant Operations • Food Service • All Directors
Water Loss	Sinks and toilets inoperative No drinking water	Institute firewatch. Conserve water. Use bottled water for drinking. Be sure to turn off water in sinks. Waterless hand washing materials are available from Materials Management and on Clinical Units.	• Security • Plant Operations • Materials Management • Safety Officer & Evs
Ventilation	No ventilation; no heating or cooling	Open windows if necessary or obtain blankets, if needed. Restrict use of odorous/hazardous materials. Mask infectious patients.	• Plant Operations

UTILITY OUTAGE PLAN, # 3510, APPENDIX B

Clinical Department Utility Outage Procedures for ICU'S, IMCU, Cardiac Step-Down, Medical-Surgical Units, SSU & PACU

SCOPE:

This policy applies to the critical care units (1500, 4300, 5300), IMCU, cardiac step-down units (2500, 5100), medical-surgical units (2200, 3200, 4100, 4200), SSU and PACU.

PURPOSE:

The following plan has been developed in order to provide the direction required in the event of a utility outage.

POLICY:

In the event of utility outage, staff will follow the procedures detailed in Policy 3208, Medical Equipment Management Plan and Policy 3510, Utility Outage Plan. Until repair is executed or service is resumed, staff will follow the procedures detailed below. For situations or equipment not captured in this policy, staff will notify the administrative supervisor to receive guidance.

Utility Failure	What to Expect	Response	Contact
Computer Systems	Systems down	Follow downtime procedures	Help Desk
Electrical Power Failure – Emergency Generators Work	Many lights are out; red outlets functional	Ensure that all life support systems are on emergency power	Plant Operations
Electrical Power Failure – Total	Failure of all electrical systems	Utilize flashlights; hand-ventilate patients; prepare to manually regulate IV's, place most critical, unstable patients on portable battery operated monitors; initiate frequent rounds on all patients; follow computer downtime procedures; ascertain need for additional personnel.	Plant Operations Respiratory Therapy
Elevators	All vertical movement will have to be by stairs	Contact physicians to reschedule diagnostics/ procedures.	
Fire Alarm System	No fire alarms or sprinklers	Institute Fire Watch. Review fire notification procedure with staff.	Plant Operations
Medical Gases	No 02	Obtain and place patients on portable cylinders – place patients with highest 02 needs first. If insufficient supply, D/C 02 if patient on 30% or less.	Plant Operations Respiratory Therapy
Medical Vacuum	No suction	Obtain portable vacuum units from Sterile Processing.	Sterile Processing
Nurse Call System	No nurse call system	Initiate frequent rounds on all patients; instruct patients on use of phones for communication to desk. Obtain bells for patients unable to use phones. Ascertain need for additional personnel.	Plant Operations
Patient Care Equipment	Equipment failure	Refer to medical equipment failure plan.	
Steam Failure	No heat/hot water	Obtain additional blankets from laundry.	Linen Services
Telephone Failure	No telephones	Refer to telephone failure plan.	Telecommuni-cations
Water (Potable)	Tap water unsafe to drink	Advise patients; place signage by water fountains. Obtain bottled water from dietary.	Plant Operations Nutrition Services
Water (Non-Potable)	Sinks /toilets inoperable	Conserve water. Obtain bottled water from dietary. Use waterless hand washing materials. Contact EVS for odor control products.	Plant Operations Nutrition Services Environmental Services
Ventilation	No ventilation; no heating or cooling	Obtain extra blankets from laundry if cold; obtain fans from plant operations for patients, hallways, heat-sensitive equipment. Mask infectious patients.	