

### **DINSHA PATEL COLLEGE OF NURSING**

Managed by MAHAGUJARAT MEDICAL SOCIETY, Nadiad College road, Nadiad-387001

Phone: (0268)2521500, Email ID: <a href="mailto:dpcningo@yahoo.com">dpcningo@yahoo.com</a> <a href="mailto:www.dpcn.org">www.dpcn.org</a>

# Dinsha Patel College of Nursing, Nadiad List of Manikins in Advance Nursing Skill Lab

# Simulator Mapping for Maximum Utilization (SMMU) 2022-2023

Sr. No.	Description of manikins	Quantity
1.	Catheterization Simulator Male	1
2.	Catheterization Simulator Female	1
3.	NG Tube and Tracheotomy Care Trainer	1
4.	Suture Practice Arm	1
5.	Episiotomy Suturing Simulator	1
6.	Breast Examination Trainer	1
7.	Birthing Process, 5 stages	1
8.	Neonatal Resuscitation Simulator	1
9.	Critical Airway Management Trainer	1
10.	I.M. Injection Simulator	1
11.	Basic Cardiopulmonary Resuscitation Torso	1
12.	Central Venous Cannulation Simulator	1
13.	Advance Vein Puncture and Injection Arm	1
14.	Advance Neonatal Resuscitation Simulator	1
15.	Adult CPR Torso with Interactive app Feedback	1
16.	Basic Patient Care Manikin	1
17.	Modular Skill Trainer (TNAI)	1





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### **SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)**

#### Name of the Simulator: Catheterization Simulator Male

The simulator has been designed to demonstrate and practice the procedure of male catheterization and to duplicate the human condition as closely as modern plastics technology allows. The anatomy of the surrounding area has been reproduced to provide as life like an appearance as possible.

### Parts of content of simulator:

- Male catheterization simulator
- Simulator lubricant
- 16 French Foley silicone catheter
- Fluid administration set
- Hard carry case
- Obstruction tool
- Small white towel

### **Objectives of male catheterization:**

- 1. List the indications of male urinary catheterization
- 2. Indicate the appropriate catheter type and size
- 3. Discuss the risk associated with male catheterization
- 4. Describe the equipment of male catheterization
- 5. Demonstrate the safe method of performing male urinary catheterization while maintaining strict aseptic technique

### **Functioning of simulator:**

- 1. Lubricate catheter by coating with life /form simulator lubricant
- 2. Slowly insert the catheter about 2"into the urethra with the penis in the normal hanging position





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until the restriction simulating the mucosal fold is encountered. It may be necessary to with draw the catheter a little and stretch the penis slightly to straighten the blockage of the mucosal fold.

- 3. Proceed by inserting the catheter another 2". You have now approached the bulbous urethra. Elevate the penis about 60 degree to straighten the urethra and proceed with the insertion.
- 4. The next restriction is the simulated sphincter entering the bladder .with experience you will feel a pop as the catheter passes into the bladder. It will require approximately 7-8"of catheter. Continue insertion until water flows from catheter.

**Note:** Special care should be taken when using Foley catheter. Cuff inflation should only be attempted when the catheter is in the proper position inside the bladder .Just as in a real patient, the cuff must be completely deflated before the catheter is removed .Improper use of a Foley catheter can result in damage to the simulator.

List of procedures to be performed: Male catheterization

Size of the group for demonstration: 15 Students

**General Precautions:** 

#### Do's

- Normal soil on the surface of the simulator can be removed with mild soap and warm water.
- Before storage be sure to remove the catheter from the urethra.
- The lubricant can dry out and act as a mild adhesive if the catheter is left in place. This results in damage to the simulator when removed.
- Before returning simulator to case drain as much liquid as possible from the bladder.
- Close the slide clamp on fluid administration set.
- Stand simulator on its plastic base and elevate placing both tubes in a water safe container.
- Open the slide clamp on the fluid administration set and the pinch clamp on the drain tube and allow system to drain.
- Dry all surface to prevent mildew formation while stored in the case.





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#### Don'ts

- Do not store manikins in proneposition.
- Do not stack cartons with manikins one on top of another
- Do not store manikins in ill ventilated rooms or at temperature in excess of 40 degree C.
- Do not store manikins in room infested with rodents pests
- Do not drop manikins on the floor.
- Do not employ news paper, printing papers to wrap manikins.
- Do not pack the manikins in colored plastic sheets.
- Do not use chemicals, betadines, iodine, dettol, solvent alcohols on manikins.
- Do not use any lubricants on manikins.
- Do not practice on manikins near any inflammable materials.
- Do not palpate manikins with finger nails.
- Do not pack any sharp objects with manikins.
- Do not leave skill lab without covering manikins with clean fabric sheets.

### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)





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### Name of Simulator/Mannequin: Catheterization simulator Male

Title of procedure	Program	Year	Course Name	Size of Group	No. of group	Prescribed hours
	GNM	First	Nursing Foundation	15 students	3	60 Minutes
Male	B.Sc. Nursing	First	Nursing Foundation	15 students	4	60 Minutes
Catheterization simulator	Post Basic B.Sc. Nursing	First	Nursing Foundation	20 students	1	60 Minutes
	M.Sc. Nursing	First	Advance Nursing Practice	4 Student	1	60 Minutes

### **SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)**

Name of the Simulator: Catheterization Simulator Female





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The simulator has been designed to duplicate the human condition and demonstrate and practice the procedure of Female Catheterization. The Female Catheterization Simulator is constructed with a bladder reservoir, patient urethra, and a valve simulating the internal urethral sphincter. The normal feeling of resistance and pressure will be experienced as a catheter is passed through the urethra, past the sphincter, and into the bladder. When the catheter enters the bladder, artificial urine (water) will flow from the catheter as it would with a real patient. This simulator is the torso of a middle-aged woman with thighs abducted for proper position during catheterization. The external genitalia and perineum are molded in lifelike form. The labia minora can be spread apart naturally to reveal the clitoris, urethral opening, and vaginal introitus.

### Parts of content of simulator:

Following parts are included with simulator

- 1. Female catheterization Simulator
- 2. Fluid administration set
- 3. Plastic positioning pad
- 4. 16 inch Foley silicone catheter.
- 5. Simulator lubricant 2 oz.
- 6. Small white towel
- 7. Obstruction tool
- 8. Hard carry case

### **Functioning of simulator:**

• The stimulator can be used to perform the procedure of catheterization in female client.

#### List of procedures to be performed:

- Female catheterization.
- Bladder irrigation with Asepto syringe

**Size of the group for demonstration:** 15 Students

### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of the Simulator: Catheterization Simulator Female





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### Parts of content of simulator:

Following parts are included with simulator

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- 6. Small white towel
- 7. Obstruction tool
- 8. Hard carry case

### **Functioning of simulator:**

• The stimulator can be used to perform the procedure of catheterization in female client.

### List of procedures to be performed:

- Female catheterization.
- Bladder irrigation with Asepto syringe

**Size of the group for demonstration:** 15 Students

General precautions: DO'S

- 1) To avoid the possibility of leakage be sure to use a 16 inch silicone Foley catheter.
- 2) Position the plastic pad between the legs and under the buttocks to allow the proper angle of





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catheterization.

- 3) Lubricate the catheter by coating with simulator lubricant.
- 4) Normal soil accumulated on the surface of the simulator can be removed with mild soap and lukewarm water.
- 5) Use only Nascoo cleaner to remove stubborn stains from simulator. Simply apply it to soiled area and wipe clean soft cloth or paper towels.
- 6) Dry the entire surface to prevent mildew formation while stored in case.

### DON"T DO'S

- Do not store manikin with water in the unit. Before returning the manikin drain as much as liquid as possible from the bladder.
- Solvent or corrosive material will damage the simulators.
- Never place on any kind of printed material, paper or plastic. These material transfer indelible stains and can damage.
- Do not use ball pen, pencil or marker over it.
- Do not drop manikin on the floor
- Do not use any lubricants on manikins
- Do not leave any liquids after use of manikin.
- Do not leave manikin on an unclean state.
- Do not practice on manikin near any inflammable material.
- Practice using gloves.
- Do not pack any sharp object with manikin

Do not store manikin in ill ventilated room or temperature in excess of 40 c.







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### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: Catheterization Simulator Female

Title of procedure	Program	Year	Course Name	Size of Group	No. of group	Prescribed hours
	GNM	First	Fundamentals of Nursing	15 students	3	60 Minutes
	B.Sc. Nursing	First	Nursing Foundation	15 students	4	60 Minutes
Female Catheterization	Post Basic B.Sc. Nursing	First	Nursing Foundation	20 students	1	60 Minutes
	M.Sc. Nursing	First	Advance Nursing Practice	4 Student	1	60 Minutes





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### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: NG Tube and Trach. Care Trainer

#### Parts of the simulator:

- 375-10001 NG Tube and Trach Care Simulator
- Tank Top
- Carry Case
- Manikin Lubricant

### General precautions while using the simulator: Do's:

- Clean with mild soap and water.
- Use only on clean surface.
- To ensure longevity, each manikin should be cleaned after each training session and a general inspection should be conducted regularly.
- Modules and all other parts should be drained and air-dried thoroughly before storage and disinfected when needed. Articulating parts will benefit from a light application of talcum powder prior to training sessions.
- Store properly between teaching sessions.

#### Don't:

• Do not submerse manikin or parts in cleaning fluids or water

Avoid felt tipped markers, ink pens, acetone, iodine or other staining products and avoid placing the manikin on newsprint or inked lines of any kind.





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### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: NG Tube and Tracheotomy Care Trainer

Title of procedure	Program	Year	Course Name	Size of Group	No. of group	Prescribed hours
<ul> <li>Tracheotomy care</li> <li>Tracheal suctioning</li> <li>NG tube insertion and removal</li> <li>NG tube irrigation installation and monitoring</li> <li>Feeding tube insertion and removal</li> <li>Gastric lavage and gavage</li> <li>Nasoenteric and esophageal tube insertion, care and removal</li> <li>Oropharyngeal and</li> </ul>	B.Sc. (N)  GNM	Second	Medical Surgical Nursing-I  Medical Surgical Nursing I and II	15 Students 15 students	group  4 Groups 3 Groups	60 Minutes
<ul> <li>oropharyngeal and nasopharyngeal insertion and suctioning</li> <li>Insertion, securing and care of endotracheal tubes</li> </ul>						





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### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of the Simulator: Suture Practice Arm

This practice and demonstrations suture arm should be considered disposable, but with proper care and treatment it will serve its purpose for a long period of time. The three "wounds" provided should be considered only samples of what can be done. With a sharp scalpel, additional "wounds" can be cut at any desired depth or location. Each can be repeatedly sutured until the skin at any one site becomes so heavily perforated that it will no longer support more suturing. The "wounds" can be bandaged with most standard adhesive bandages. Residual adhesive can be removed with Glue-Off.

### **Objectives**

- 1. List the indications of Suture Practice Arm
- 2. Discuss the risk associated with Suture Practice Arm
- 3. Describe the equipment of Suture Practice Arm
- 4. Demonstrate the safe method of performing Suture Practice Arm while maintaining strict aseptic technique

### **Care of Simulator:**

- Do not use povidine-iodine prep solutions.
- These solutions will indelibly stain the arm. Normal soil accumulated on the surface of the simulator can be removed with mild soap and lukewarm water.
- Use REN Cleaner to remove stubborn stains from simulator.
- Simply spray soiled area and wipe clean with a soft cloth or paper towels.
- When not in continuous use, it is recommended to store the simulator in the storage box furnished, or cover it with a cloth or sheet of plastic.

#### **Cautions:**

• Solvents or corrosive materials will damage the simulator.





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- Never place simulator on any kind of printed paper or plastic.
  - These materials will transfer indelible stains.

Ball-point pens will also make indelible stains.

List of procedures to be performed: Lumbar Epidural Injection

**Size of the group for demonstration:** 15 Students

General precautions: Do's

- Normal soil on the surface of the simulator can be removed with mild soap and warm water.
- Before storage be sure to remove the needles are removed.
- The water can dry out and act as a mild adhesive if the catheter is left in place. This results in damage to the simulator when removed.
- Before returning simulator to case drain as much liquid as possible from the bladder.
- Close the slide clamp on fluid administration set.
- Stand simulator on its plastic base and elevate placing both tubes in a water safe container.
- Open the slide clamp on the fluid administration set and the pinch clamp on the drain tube and allow system to drain.
- Dry all surface to prevent mildew formation while stored in the case.

#### Don'ts

- Do not store Mannequin in proneposition.
- Do not stack cartons with Mannequin one on top of another
- Do not store Mannequin in ill ventilated rooms or at temperature in excess of 40\* C
- Do not store Mannequin in room infested with rodents pests
- Do not drop Mannequin on the floor.
- Do not employ news paper, printing papers to wrap manikins.
- Do not pack the Mannequin in colored plastic sheets.
- Do not use chemicals, betadines, iodine, dettol, solvent alcohols on manikins.
- Do not use any lubricants on Mannequin.
- Do not practice on Mannequin near any inflammable materials.





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- Do not palpate Mannequin with finger nails.
- Do not pack any sharp objects with Mannequin.
- Do not leave skill lab without covering Mannequin with clean fabric sheets.

### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: Suture practice arm

Title of	Program	Year	Course Name	Sizeof	No. of	Prescribed
procedure				Group	group	hours
Suture practice	GNM	Second	Medical Surgical	15	3	60 Minutes
arm			Nursing I and II	students		
	B.Sc.		Medical Surgical	15	4	60 Minutes
	Nursing	Second	Nursing I and II	students		
		and				
		Third				
	Post	First	Medical Surgical	20	1	60 Minutes
	Basic		Nursing	students		
	B.Sc.					
	Nursing					
	M.Sc.	First	Advance Nursing	4	1	60 Minutes
	Nursing		Practice	Student		





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### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

### Name of the Simulator: Episiotomy Suturing Simulator

The simulator has been designed to demonstrate and practice the procedure of suturing an episiotomy. The anatomy of the surrounding area has been reproduced to provide as life like an appearance as possible.

#### Parts of content of simulator:

- 1. Midline episiotomy simulator
- 2. Mediolateral episiotomy simulator
- 3. Right Mediolateral episiotomy simulator

### **Functioning of simulator:**

- 1. It is recommended that the deep sutures be placed first. Therefore evenly place three interrupted sutures into the perineal incision.
- 2. Complete the repair by beginning 1 cm above the vaginal apex with a stasis structure. After tying this suture cut the short end only and continue on the locked mattress sutures to the introitus.
- 3. Next insert the needle down into the perineal subcutaneous tissue. Just in front of the needle exit hole from the last vaginal structure. in this way the vaginal suturing will not open up.
- 4. Continue with evenly placed unlocked continuous surgical gut structures. When the last suture is placed insert the needle subcutaneously. And exit subutticularly (1 cm below the epithelium) at the posterior apex of the perineal incision.
- 5. Begin subutticularly structures, altering sides until the introitus is reached again. The suture can be tied off at this point with one last lateral suture to make a tail of the suture which to tie.





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6. Taking the last subutticularly suture back under the hymeneal ring into the vagina, one last lateral suture between previously placed mattress sutures can also be done end the repair(in this way the knot will not rub on the perineal pad and cause discomfort to a real woman's episiotomy.)

List of procedures to be performed: Episiotomy Suturing

**Size of the group for demonstration:** 15 Students

### **General precautions:**

- 1. Dirt can be removed on the surface can be removed with mild soap and Luke warm water
- 2. Solvent or corrosive material will damage the simulators.
- 3. Never place on any kind of printed material, paper or plastic. This material transfer indelible stains and can damage.
- 4. Do not use ball pen, pencil or marker over it.
- 5. Do not drop manikin on the floor
- 6. Do not use any lubricants on manikins
- 7. Do not leave any liquids after use of manikin.
- 8. Do not leave manikin on an unclean state.
- 9. Do not practice on manikin near any inflammable material.
- 10. Practice using gloves.
- 11. Do not pack any sharp object with manikin





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### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: Episiotomy Suturing

Title of	Program	Year	Course Name	Size of	No. of	Prescribed
procedure				Group	group	hours
Episiotomy	GNM	Third	Obstetrical And	15	3	60 Minutes
Suturing			Gynecological	students		
			Nursing			
	B.Sc.	Fourth	Obstetrical And	20	1	60 Minutes
	Nursing		Gynecological Nursing	students		
	Post Basic	First	Maternal Nursing	20	1	60 Minutes
	B.Sc.			students		
	Nursing					

### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

### Name of the Simulator: Self Breast Examination

The simulator demonstrates realistic self-examination with our natural casting of a female upper body with medium sized breasts. It can easily be worn, in order to better train and practice breast self-examination. It is made by new 3B SKIN like<sup>TM</sup> high-quality silicone. It displays the skin in finest detail. It is very realistic to the touch and dermatologically tested. Breast examination is possible in both upright and lying positions.

### Parts of content of simulator





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- 1. The Strap-Around Breast Examination Model illustrates the following anomalies:
- 2. Right breast: round, movable tumor at a depth of 10 mm, 20 mm in diameter, presumably benign.
- 3. Right breast: round, movable tumor at a depth of 5 mm, 20 mm in diameter, presumably benign.
- 4. Left breast: irregular tumor at a depth of 5 mm, adhering to the chest wall, diameter of approx. 35 x 25 mm, presumablymalign.
- 5. Column-shaped, irregular tumor at a depth of 5 mm, adhering to the chest wall, approx. 30 mm in diameter, malign.
- 6. Left breast: permanently inverted nipple (recently occurred), frequently in combination with a malign tumor.
- 7. Left breast: "orange-peel skin", skin structure as in an orange peel with pore retraction through lymphostasis (blocked lymph ducts) caused by malign tumors.
- 8. Left armpit: irregular, firmly adhering lymph node at a depth of 10 mm, diameter approx. 35 x 25 mm, presumably malign.
- 9. Above left clavicle: Malign tumor at a depth of 5 mm, 20 mm in diameter.

### **Functioning of simulator:**

1) The stimulator can be used to perform the procedure of Self breast examination in female client.

List of procedures to be performed: Self Breast Examination

Size of the group for demonstration: 15 Students

### General precautions: DO'S

- 1) After usage, store the model while it is resting on the base. Please do not compress, roll or fold up the Model.
- 2) Please also avoid violently pulling or tearing the straps.
- 3) Normal soil accumulated on the surface of the simulator can be removed with mild soap and lukewarm water.
- 4) Dry the entire surface to prevent mildew formation while stored in case.

### DON"T DO'S





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- 1) Solvent or corrosive material will damage the simulators.
- 2) Never place on any kind of printed material, paper or plastic. These material transfers indelible stain and can damage.
- 3) Do not use ball pen, pencil or marker over it.
- 4) Do not drop manikin on the floor.
- 5) Do not use any lubricants on manikins.
- 6) Do not leave any liquids after use of manikin.
- 7) Do not leave manikin on an unclean state.
- 8) Do not practice on manikin near any inflammable material.
- 9) Do not pack any sharp object with manikin
- 10) Do not store manikin in ill ventilated room or temperature in excess of 40 c.

### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: Self Breast Examination

Title of	Program	Year	Course Name	Size of	No. of	Prescribed
procedure				Group	group	hours
Self-Breast	GNM	Second	Medical Surgical	15	3	30
Examination			Nursing I and II	students		Minutes
	B.Sc.	Third	Medical Surgical	15	4	30
	Nursing		Nursing II	students		Minutes
	Post Basic	First	Maternal Nursing	20	1	30
	B.Sc.		_	Student		Minutes
	Nursing					





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College road, Nadiad-387001

Phone: (0268)2521500, Email ID: <a href="mailto:dpcningo@yahoo.com">dpcningo@yahoo.com</a> <a href="mailto:www.dpcn.org">www.dpcn.org</a>

### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

#### Name of the Simulator: Child Birth Simulator

Gaumard childbirth simulator has been part of Maternal and Child Health programs. This comprehensive teaching system combines the best of our patient care simulators with the Advanced Childbirth simulator. It is designed to provide a complete birthing experience before, during and after delivery.

#### **Features**

- 1. Full size upper and lower femaletorso
- 2. Removable stomach cover
- 3. One articulating birthing baby with umbilical cord and placenta
- 4. Automatic birthing system that rotates baby as it moves through the birth canal
- 5. Measure head descent and cervical dilation
- 6. Multiple placenta positions
- 7. Replaceable dilating cervices
- 8. Practice postpartum suturing on vulvalinserts
- 9. Practice Leopold Maneuvers

#### Parts of content of simulator

- 1. Abdomen cover with speaker attached.
- 2. Articulating birthing fetus.
- 3. Cervix holder
- 4. Inflatable cushion for Leopold maneuvers.
- 5. Instructional demo on CDROM
- 6. OMNI code blue pack
- 7. Two mechanical adapters.





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- 8. Two umbilical cords
- 9. Two dilating cervices
- 10. Two umbilical clamps
- 11. Two vulval inserts
- 12. Two placentas with fragments.
- 13. One Omni controller
- 14. Three vulva for postpartum suturing
- 15. Talcum powder and silicone lubricant
- 16. NOELLE teaching guide with scenarios
- 17. Carrying bag

### **Functioning of simulator:**

The stimulator can be used

- 1. To observe automatic birthing system
- 2. To learn conduction of normal and abnormal mechanism of labor.
- 3. To Measure head descent and cervical dilation.
- 4. To explain multiple placental positions.
- 5. To Practice postpartum suturing.
- 6. To perform palpation of antenatal mother using LeopoldManeuvers

### List of procedures to be performed:

- 1. Conduction of Normal Delivery
- 2. Conduction of Abnormal Delivery.
- 3. Vaginal Examination.
- 4. Antenatal Assessment (palpation using Leopold Maneuvers)
- 5. Episiotomy Suturing.
- 6. Placental Examination.
- 7. Ventouse delivery

Size of the group for demonstration: 15 Students

**General precautions: DO'S** 





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- 1) The simulator will be only power on when connected to AC power supply.
- 2) Operating temperature would be 50-95 degree and humidity would be 10-35 %
- 3) After usage, store the model while it is resting on the base in cool dry place. Extend storage above 85 degrees Fahrenheit will cause to soften and slowly warp.
- 4) Do not stake or store heavy materials on top of the carton.
- 5) Normal soil accumulated on the surface of the simulator can be removed with mild soap and lukewarm water.
- 6) Always keep clear of the birthing mechanism while the system is on.
- 7) Never operate the birthing mechanism without the tummy cover in place.
- 8) After cleaning dust with talcumpowder.
- 9) Always lubricate the birth canal prior to delivery.
- 10) The birth canal insert is attached to the pelvis of the simulator only remove insert when replacement is necessary.

#### DON"T DO'S

- 1) Do not wrap in news print.
- 2) Do not use ball pen, pencil or marker over it. It cannot be removed.
- 3) Remove all traces of any lubricant.
- 4) Dry thoroughly.
- 5) Do not clean with harsh abrasives.
- 6) The simulator is slash proof not water proof. Do not submerge or allow water to enter the interior of the simulator.
- 7) Solvent or corrosive material will damage the simulators.
- 8) Never place on any kind of printed material, paper or plastic. These material transfers indelible stain and can damage.
- 9) Do not drop manikin on the floor.
- 10) Do not leave manikin on an unclean state.
- 11) Do not practice on manikin near any inflammable material. 12)Do not pack any sharp object with manikin





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### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: Child birth Simulator

Title of	Program	Year	Course Name	Sizeof	No. of	Prescribed hours
procedure				Group	Group	
• Conduction	GNM		Midwifery	15	3	• Conduction
of		Third	and	students		<ul> <li>Conduction</li> </ul>
<ul> <li>Conduction</li> </ul>			Gynecological			<ul> <li>Vaginal</li> </ul>
<ul> <li>Vaginal</li> </ul>			Nursing			Examination:20
Examination.	B.Sc.		Child Health	15	4	Minutes
<ul> <li>Antenatal</li> </ul>	Nursing	Third	Nursing	students		<ul> <li>Antenatal</li> </ul>
Assessment						Assessment
(Palpation						(Leopold
<ul> <li>Episiotomy</li> </ul>	Post		Child Health	20	1	Maneuvers): 20
Suturing.	Basic	First	Nursing	students		Minutes
<ul> <li>Placental</li> </ul>	B.Sc.					<ul> <li>Episiotomy</li> </ul>
Examination.	Nursing					Suturing.30 Minutes
• Ventouse	M.Sc.		Advance	4	1	<ul> <li>Placental</li> </ul>
delivery	Nursing	First	Nursing	students		Examination
	_		Practice			:30 Minutes
						• Ventouse delivery:
						45
						Minutes





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### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: Critical Airway Management Trainer

#### Parts of the simulator:

- Critical Airway Management Trainer
- Soft carry bag
- Simulated blood powder (1 gallon)
- Lubricant (40 oz)
- 3-year manufacturer's warranty

### Functionality of simulator: General Instructions for Use

Enables training in:

- Cricothyrotomy
- ACLS and BCLS

### General precautions while using the simulator: Do's:

- Properly lubricate the Airway Management head and intubation appliances.
- Ensure intubation appliances are used accordingly.

#### Don't:

Do not place simulator in contact with any printed paper or plastic. The ink will transfer and cause an indelible stain. Similar inks, such as ballpoint pen, will also cause an indelible stain.





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### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: Critical Airway Management Trainer

Title of	Program	Year	Course Name	Size of	No. of	Prescribed
procedure				Group	group	hours
BLS	B. Sc.	Second	Medical Surgical Nursing I	15	4	60
	(N)	and	and II	Students	Groups	Minutes
		Third				
	M. Sc.	First	Advance Nursing Practice	4	1	60
	(N)			Students	Group	Minutes
ACLS	B. Sc.	Third	Medical Surgical II	15	4	60
	(N)			Students	Groups	Minutes
	M. Sc.	First	Advance Nursing Practice	4	1	60
	(N)			Students	Group	Minutes
Cricothyrotomy		Third	Medical Surgical II	15	4	60
	(N)			Students	Groups	Minutes
	M. Sc.	First	Advance Nursing Practice	4	1	60
	(N)			Students	Group	Minutes





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### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of the Simulator: IM Injection

Intramuscular Injection Simulator is designed to provide students with the visual and tactile experience needed to learn intramuscular injection techniques. This simulator has landmarks that can be palpated so that the various injection techniques can be practiced. Unique design and construction give students the opportunity to visualize underlying structures and quickly learn proper injection procedures.

#### **Internal Structure:**

As with all replicas and simulators, the **Intramuscular Injection Simulator** is extremely realistic. Skin and muscle textures, and bone shape and position closely resemble a live patient. As a result, perforation of the tissue with a needle duplicates the sensation of administering an actual injection. A simulated bony structure is embedded in the torso and represents the superior end of the femur, or greater trochanter; the posterior superior and anterior superior iliac spines; and the sacrum. Bones are positioned in a way that students are able to visualize and palpate these anatomical landmarks in order to identify the gluteal injection sites.

A section of the upper, outer quadrant of the left gluteal area is cut away to allow students to visualize the underlying structures. The gluteus medius and gluteus maximus muscles, sciatic nerve, and vascular structures are clearly shown. Some students, and even instructors, have found the realism of this simulator to be rather startling. It was intended to be just that. It will provide the kind of learning experience that helps students make the transition from the idealized classroom setting to the realities of ward duty.

#### **Objectives**

1. List the indications of Intramuscular Injection





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- 2. Indicate the appropriate site Intramuscular Injection
- 3. Discuss the risk associated with Intramuscular Injection
- 4. Describe the equipment of Intramuscular Injection
- 5. Demonstrate the safe method of performing Intramuscular Injection while maintaining strict aseptic technique

### **Supplies/Replacement:**

- Cleaner
- Replacement Muscle
- Intramuscular injection simulator
- 3 cc syringe
- 12 cc syringe
- Instructions for use
- Hard carrying case

#### **Procedures That Can Be Performed on This Simulator:**

The Intramuscular Injection Simulator is a functional teaching aid that enables personnel to develop manipulative skills and improve techniques. It makes the learning experience one that is easily applied in actual patient care, with little loss of time and a minimum of patient discomfort. The specific techniques in intramuscular injections that can be taught with this simulator are:

#### Gluteus Medius Injections.

This is probably the most commonly considered site for giving posterior injections; the sciatic nerve transverses this area. If a student perforates the nerve or the vascular structures, it can cause irreparable harm to the patient. One acceptable technique for giving injection in this site is to have the patient in a prone position, toes flexed inward. This relaxes the posterior muscles. The simulator duplicates this position. The student then identifies the greater trochanter and draws an imaginary line from it to the crest of the posterior iliac crest. An injection may be given anywhere above and outside of this imaginary





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plane. The needle should penetrate on a direct back-to-front route.

Another technique is to place the palm of the hand over the trochanter and extend the spread fingers towards the posterior iliac spine. An injection may be safely administered by entrance between the thumb and index finger.

**Ventrogluteal Injections:** This site is becoming more frequently used for injections because it is removed from major blood vessels and nerves and it also presents good

muscle density. Because of the previously listed features and because the landmarks are so easily identified, this site can often be used in giving pediatric injections. The patient can be injected in this area while in a prone position, on their side, or standing, but the best technique dictates that they should be in a supine position. The student defines the site by locating the greater trochanter and placing their palm on it. Then the index finger should reach towards the anterior iliac crest. Now move the middle finger away from the index finger. The triangle between the two is the safe site to inject. The needle should be inserted towards the iliac crest at a slight upward angle. C. Vastus Lateralis Injections Again because of the lack of major vessels and nerves, this site is often used in pediatric patients. With the patient in the supine position, the student identifies the site by positioning one hand above the knee and one hand below the greater trochanter. The area between the hands is the safe zone.

#### Care of Simulator:

- Normal soil accumulated on the surface of the simulator can be removed with mild soap and lukewarm water.
- ➤ Use Cleaner (LF09919U) to remove stubborn stains from simulator.
- > Simply spray soiled area and wipe clean with a soft cloth or paper towels.

#### **Cautions:**

- > Solvents or corrosive materials will damage the simulator.
- Never place simulator on any kind of printed paper or plastic.
- > These materials will transfer indelible stains.
- ➤ Ball-point pens will also make indelible stains.





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Name of Simulator/Mannequin: IM Injection

Title of	Program	Year	Course	Size of	No. of	Prescribed
procedure			Name	Group	group	hours
I.M. Injection	G.N.M	First	Nursing	15	3	60 Minutes
			Foundation	students		
	B. Sc.	First	Nursing	15	4	60 Minutes
	Nursing		Foundation	students		

### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

### Name of the Simulator: Cardio Pulmonary Resuscitation

The simulator has been designed to demonstrate and practice the procedure of Critical care for any life saving condition. The anatomy of the surrounding area has been reproduced to provide as life like an appearance as possible. Aims to develop an innovative training simulation mannequin to provide key medical training to improve patient's safety and treatment.

#### Parts of content of simulator:

- 1. Adult with real life size and texture simulator
- 2. Simulator for Cardio Pulmonary Resuscitation
- 3. Advance Airway Management

### Accessory equipment sizes recommended for optimal performance:

- □ Nasal Mask
- $\square$  8.0-9.0 mm ID for oral intubation





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☐ Size 3-5 for LMA laryngeal masks

Similar respective sizes for other supraglottic devices

### Functioning of simulator: CPR:

Make sure you're not putting yourself in harm's way by administering CPR to someone unconscious. Give the dispatcher your location, and notify him or her that you're going to perform CPR. If you're alone, put your phone on speaker mode so your hands are free to start compressions. If you have someone else with you, have him or her stay on the line while you do CPR on the victim. Realistic rib structure for easy identification of the xiphoid process, sternum and sternal notch.

Knowing how to perform both methods of CPR (cardiopulmonary resuscitation) on an adult could save a life. However, the recommended method for performing CPR has changed relatively recently, and it is important to know the difference. In 2015, the American Heart.

Association made a radical change to the recommended CPR process for victims of cardiac arrest.

### a) Compression

- Place the victim on his or her back
- Place the heel of one hand on the victim's breastbone, 2 finger-widths above the meeting area of the lower ribs, exactly between the normal positions of the nipples.
- Position your body directly over your hands, so that your arms are straight and somewhat rigid.
- Perform 30 chest compressions. CPR performance monitoring
  - a) Compression depth/rate
  - b) Chest recoil
  - c) Compression interruptions Minimize pauses in chest compression that occur when changing providers or preparing for a shock
  - d) Make sure the airway is open
  - e) Give two rescue breaths (optional)
  - f) Repeat the cycle of 30 chest compressions
  - g) Ventilation rate





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- h) Excessive ventilation
- i) Time to defibrillation

### b) Airway Management:

Provides airway facilitates full range of airway management training techniques.

### c) Check for breathing

Make sure that the airway is not blocked. If the mouth is closed, press with your thumb and forefinger on both cheeks at the back of the teeth to help open the mouth and then look inside. Remove any visible obstacle that is in your reach but never push your fingers too far inside. Put your ear close to the victim's nose and mouth, and listen for slight breathing. Watch for rising and falling of the chest. If the victim is coughing or breathing normally, do not perform CPR.

#### > Care of the Trainer

- 1. Do not allow the skin to come in contact with any printed material, including marker and ball-pen; inks will be absorbed resulting in permanent stain.
- 2. Everyday soil may be removed with warm soapy water and a clean cloth. For stubborn soil, use cleaner.
- 3. Be sure all parts of the trainer are clean and dry before storage.
- 4. Most cleaning can be done with the trainer fully assembled. If you must remove the head
- 5. Exposure to extreme heat may result in deformation.

### **Size of the group for demonstration:** 15 Students

### **General precautions:**

- 1. Dirt can be removed on the surface can be removed with mild soap and Luke warm water
- 2. Solvent or corrosive material will damage the simulators.
- 3. Never place on any kind of printed material, paper or plastic. This material transfer indelible stains and can damage.
- 4. Do not use ball pen, pencil or marker over it.





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- 5. Do not drop mannequin on the floor
- 6. Do not use any lubricants on mannequins
- 7. Do not leave any liquids after use of mannequin.
- 8. Do not leave mannequin on an unclean state.
- 9. Do not practice on mannequin near any inflammable material.
- 10. Practice using gloves.
- 11. Do not pack any sharp object with mannequin

### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: Adult CPR Simulator

Title of	Program	Year	Course Name	Size	No. of	Prescribed
procedure				Group	group	hours
Cardio Pulmonary	GNM	Second	Medical Surgical	15	3	60 Minutes
Resuscitation			Nursing I and II	students		
■ Airway	B.Sc.	Second	Medical Surgical	15	4	60 Minutes
managem	Nursing		Nursing I	students		
ent	Post Basic	First	Medical Surgical	20	1	60 Minutes
	B.Sc.		Nursing	students		
	Nursing					
	M.Sc.	First	Advance	4 Student	1	60 Minutes
	Nursing		Nursing Practice			

### <u>SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)</u>

Name of Simulator/Mannequin: Central Venous Cannulation Insertion Simulator

#### Parts of the simulator:

- ➤ Centre Line Man Torso
- > Replaceable Tissue (CLMT-50)
- > Vessel Filling Port





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- > Fill Line
- Pulse Hand Pump
- Venous Pressure Regulator
- Carrying Case
- > Arterial Fluid (red)
- Venous Fluid (blue)
- ➤ User's Guide

### Functionality of simulator: General Instructions for Use

- ➤ Practice full central venous catheterization using ultrasound guided or blind/landmark insertion approaches at the subclavian, supraclavicular, and internal jugular access sites.
- > Practice placing patient in appropriate position per access site standards
- ➤ Gain experience in identifying and selecting appropriate access site based on patient anatomical variations
- > Developing psychomotor skills required for obtaining during cannulation
- Detecting anatomical variations
- Distinguishing vessels
- Visualizing arterial pulse and venous compression
- Identifying anatomical location of target vessel
- Visualizing needle cannulation of target vessel in transverse view
- Visualize threading of guide wire in longitudinal axis view
- > Visualizing catheter placement
- > Reducing rate of mechanical complications due to anatomical variances such as: pneumothorax or arterial puncture.
- > Improving first cannulation success and decreasing needle passes
- > Practice palpating external landmarks to identify vessel location
- ➤ Practice identifying unsuccessful vessel access by fluid feedback representing arterial puncture





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### General precautions while using the simulator:

Do's:	Don't:
Clean with mild soap and water.	Do not submerse manikin or parts in
• Use only on clean surface.	cleaning fluids orwater
• To ensure longevity, each manikin should	<ul> <li>Avoid felt tipped markers, ink pens,</li> </ul>
be cleaned after each training session	acetone, iodine or other staining
and a general inspection should be	products and avoid placing the manikin
conducted regularly.	on newsprint or inked lines of any kind

### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: Central Venous Cannulation Insertion Simulator

Title of procedure	Program	Year	Course Name	Sizeof	No. of group	Prescribed
				Group		hours
Subclavian,	B. Sc. (N)	Third	Medical Surgical	15	4 Groups	60 Minutes
Supraclavicular,			Nursing II	Students		
and Internal						
Jugular Vein sites	M. Sc. (N)	First	Advance Nursing	4 Students	1 Group	60 Minutes
			Practice			

Name of Simulator/Mannequin: Advance Venipuncture and Injection Arm





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### Parts of the simulator:

- 3 cc syringe with needle
- 12 cc syringe with needle
- 2 IV bags
- Needle
- 1 pinch clamp
- Infusion set
- Intradermal sealant
- Synthetic arterial blood

### Functionality of simulator: General Instructions for Use

- Preparing the arm for intravenous infusions
- Recommended procedures for simultaneous iv infusions and drawing blood
- Enables Intramuscular injections
- Enables Intradermal injections

### General precautions while using the simulator:

#### Do's:

- After each class use, disconnect bags and return synthetic blood to storage container.
- Reconnect one IV bag to the system.
- Fill the bag with tap water and flush the venous system, allowing the open end to drain into a sink or basin.
- ➤ When the system runs clean, close the clamp and remove the IV bag.
- Excess water may be removed from the arm by raising the hand, lowering the shoulder, and draining it into a sink or basin. Wash outside of arm with Ivory liquid detergent and water.
- Always remove the pinch clamps from shoulder tubing and drain excess water from veins





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before storing.

- Ordinary stains can be removed by washing with soap and warm water.
- ➤ Newsprint, similar printed paper, or plastic will permanently stain the simulator if prolonged contact occurs.
- > Stubborn stains may be removed with Nasco Cleaner (LF09919U) simply by dispensing it on the area and wiping with a soft cloth or paper towel.

#### Don't:

- ➤ NEVER use synthetic blood for intramuscular injection.
- ➤ DO NOT use dull or burred needles, as these will cause leaks in the system. Burred needles will cause permanent damage. Use smaller needles (20- to 25-gauge).
- ➤ DO NOT allow "blood" to dry on simulator it may stain arm.
- ➤ Use only 500 cc of infusion fluid, as a larger amount will also increase the pressure of the venous system, resulting in leaks.
- > DO NOT clean the simulator with solvents or corrosive material, as they will damage it.

### SIMULATOR MAPPING FOR MAXIMUM UTILIZATION (SMMU)

Name of Simulator/Mannequin: Advance Venipuncture and Injection Arm

Title of procedure	Program	Year	Course Name	Size of	No. of	Prescribed
				Group	group	hours
IV infusion	GNM	First	Fundamentals of	15	3	60
			Nursing	Students	Groups	Minutes
Subcutaneous injection	B.Sc. (N)	First	Fundamentals of	15	3	60
			Nursing	Students	Groups	Minutes





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<ul> <li>Blood collection</li> <li>Intradermal injection</li> <li>Intramuscular</li> </ul>	Post Basic B.Sc. (N)	First	Fundamentals of Nursing	15 Students	3 Groups	60 Minutes
injection						

