S303 CODE BLUE® I Multipurpose Patient Care Simulator



General Patient Care CPR Intubatable Airway Breast Palpation Injection Training

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PLEASE READ THE FOLLOWING INSTRUCTIONS PRIOR TO COMMENCING TRAINING EXERCISES ON YOUR NEW MANIKIN.

HANDLE YOUR SIMULATOR IN THE SAME MANNER AS YOU WOULD HANDLE YOUR PATIENT - WITH CARE AND CONSIDERATION.

SHOULD YOU HAVE ANY QUESTIONS AFTER READING THIS INSTRUCTIONAL MANUAL, PLEASE CALL OUR TOLL-FREE NUMBER USA (800) 882-6655 or e-mail: <u>sima@gaumard.com</u>

TABLE OF CONTENTS

SECTION 1 - INTRODUCTION	5
1. Contents	5
2. Assembly	7
SECTION 2 - GENERAL CARE CAPABILITIES	9
1. Bandaging	9
2. Eyes/Ophthalmological Exercises	9
3. Teeth and Tongue	9
4. Hygienic Care	9
5. Injection Sites	10
6. Breast Palpation and Examination	12
7. Male and Female Organs	12
8. Range of Simulated Movement	12
9. Ears, Nose and Throat	12
10. Stomach and Liver	13
11. Transverse Colostomy, Ileostomy, and Suprapubic Stoma	13
12. Intestinal Tract	14
13. Urinary System	14
14. Female Catheterization	14
15. Male Catheterization	15
16. Decubitus Ulcers	17
17. Injection Training Arm and Hand	18
18. Amputation Stump	19

SECTION 3 - CPR	20
SECTION 4 – AIRWAY MANAGEMENT	21
SECTION 5 - BREAST EXAMINATION	23
SECTION 6 - GENERAL NOTES	26
1. Catheters	26
2. Emptying the Reservoir System	26
3. Filling of the Bladder	26
4. Interchangeable Male and Female Breasts and Genitalia	26
5. Internal Cleaning	26
6. Lubrication	26

SECTION 1 - INTRODUCTION

S-303 Contents



Upper body with intubatable airway. Neckbrace removed. Also shown is the IV arm to her right.



Lower body with legs and feet. Also shown is the waist rod that joins the upper and lower torsos as well as the blue bulb used to inflate an internal cushion lifting the uterus and bladder anteriorly.



Accessory package containing: (1) powder; (2) Allen wrench to remove legs;

- (3) blue bulb to increase pressure in blood bag; (4) enema bottle; (5) disposable cleaners;
- (6) blood bag with inlet and outlet ports; (7) portable IV stand; (8) spare arm skin;
- (9) synthetic blood concentrate to be mixed with clean water; (10) funnel.



Accessories with: (1) Bra used to cover breast inserts; (2) breast showing lymphatic drainage; (3) two ostomy ports; (4) male organ with two stoppers used when attaching the male organ over the female organ; (5) set of seven interchangeable female breasts; (6) male breasts.

Assembly of the S303 Code Blue® I



To assemble, unscrew one knob at either end of the waist rod, pull rod out. Make sure the white guide tube remains in place.



Within the upper torso locate the stomach reservoir. Connect the tube from the stomach to the port shown above. The click valve on this tube is normally closed to prevent air from leaking past during CPR exercises. You are now ready to attach the lower torso of the manikin to the upper torso.



Ease the lower torso into the upper torso, being careful not to disengage the stomach reservoir.



Line up the holes and slide the waist rod through the white guide tube. Replace the waist knob and finger tighten.

SECTION 2 - GENERAL CARE CAPABILITIES

1. Bandaging

The fingers and toes of this simulator are separated to permit bandaging exercises. The surface of the manikin is smooth and resistant to water, oil, and liniments.

2. Eyes/Ophthalmologic Exercises

The head has removable eyes that open and close permitting the following exercises:

- Administration of orbital medicines into the conjunctival sac
- Removal of foreign bodies
- Eye irrigation
- One pupil is "blown"



3. Teeth and Tongue

The teeth and tongue are of normal size and **care must be taken not to damage them while placing an endotrachial tube using a conventional laryngoscope.**

4. Hygienic Care

The head is supplied with a wig, permitting instruction in combing, shampooing, and head draping. The manikin surface is water resistant so that bathing exercises may be practiced.

5. Injection Sites

Sites in the upper left and right arm, as well as the left and right thigh, allow administration of intramuscular injections. Sites are removable. Inside each site is a sponge to absorb the injectate. There is also a site in the upper gluteal region to permit intramuscular injections in the buttocks. All injection sites are easily removed and replaced. **S 301** has numerous injection sites in the Injection Training Arm and hand described later.



IM site on shoulder



Subcutaneous site on injection training arm



IM site on upper buttock



IM sites on left and right thighs

6. Breast Palpation and Examination

The manikin is provided with seven (7) interchangeable male and female breast inserts. These breasts demonstrate chronic mastitis, benign growth, carcinoma and the "orange peel" effect, giant sarcoma, scirrhus carcinoma, the lymphatic drainage system, and movement of the mammary gland on the surface of the pectoralis major muscle.

7. Male and Female Organs

The male and female organs are lifelike. **S 303** is shipped with a red adaptor at the opening of the urethra for female catheterization exercises. This red adaptor will be removed when the male organ is used for catheterization.

8. Range of Simulated Movement

The joints are strong and their movements are lifelike and realistic. The manikin bends at the waist. The head and jaw articulate.

9. Ears, Nose and Throat

Left ear - the interior of the ear contains a simulated ear canal with a capacity of 10 ml, facilitating syringing exercises.

Nasal/oral openings: both are connected to the stomach reservoir/tank, so that a #10 Levine tube may be used to demonstrate tube feeding and gastric suction.

A gastric reservoir (capacity: 850 ml) is provided, with an opening for gastrostomy.

REMEMBER TO ALWAYS USE A LUBRICANT PRIOR TO INTRODUCTION OF A LEVINE TUBE OR ANY OTHER INVASIVE DEVICE.

NOTE: The nostrils can be pinched for exercises in CPR.

10. Stomach and Liver

The upper torso contains a realistic stomach and liver. The upper torso also includes a stomach tank into which a #10 Levine tube may be used to demonstrate tube feeding and gastric suction. A gastrostomy port connects directly to the stomach tank from the red flange located near the waist. ALWAYS USE A LUBRICANT WHEN INTRODUCING THE LEVINE TUBE.

11. Transverse Colostomy, Ileostomy, and Suprapubic Cystostomy

The creation of an ostomy port, a temporary or permanent excretory opening, is an important part of abdominal surgery. The simulator demonstrates the appearance of ostomy openings. The **S 303** has anatomically sculptured stomas of a transverse colostomy, ileostomy, and suprapubic cystostomy, which may be performed as a result of abdominal surgery. Conventional ostomy drainage and irrigation exercises can be performed on the simulator.

The ostomy sites connect to reservoirs of appropriate size, and disposable or permanent ostomy bags may be applied to all openings. Exercises in skin preparation and stoma hygiene, as well as treatment of skin conditions around the sites may also be practiced. The reservoirs may be cleansed by introducing a solution of soap and water or detergent with a 60 cc. syringe. Alternatively, the reservoirs can be removed from the lower torso and cleaned.

12. Intestinal Tract

Administration of an enema may be performed on this manikin. The legs articulate sufficiently to permit enema exercises with the manikin on its back. The enema should be introduced with an anal nozzle of small diameter. Remember to use a lubricant.

PLEASE NOTE: A non-return valve is built into the anal canal to prevent fluid spilling during instillation. The enema reservoir capacity is approximately 750 ml.

13. Urinary System

The urethral passage and the bladder (capacity: approximately 1800 ml) are connected by a valve assembly to make catheterization exercises more lifelike. Fluid can be withdrawn from the bladder after the insertion of a #18 French catheter. The suprapubic opening may be used for filling the bladder or for drainage exercises. Please note that repeated sterilization can cause a variance in catheter diameters. An older device might permit fluid leakage. Therefore, different catheters should be inserted to determine a proper fit.

NOTE: ALWAYS USE A LUBRICANT WHEN INTRODUCING A CATHETER.

14. Female Catheterization

Bladder catheterization may be required to remove urine. This procedure must be conducted under aseptic conditions to prevent the subsequent infection or inflammation of the urinary tract. A suprapubic cystostomy opening is also present for practice in cystostomy management and maintenance. When practicing catheterization, the labia minora must be separated to examine the urethral opening, as in the female patient. The realistic simulation of the vulva area also permits instruction in asepsis and disinfection. When actually performing catheterization on the simulator, a **"one eye"** #18 French catheter is recommended. Smaller catheters may cause leakage.



Always lubricate the distal end of the catheter. Once the catheter is in place, use the blue squeeze bulb to increase bladder pressure and assure a good flow of urine.

15. Male Catheterization

The **S 303** permit catheterization of the male in the upright or recumbent position by the attachment of the male organ. The flexible vinyl male organ contains the urethra, which is connected to an internal urinary bladder through a one-way valve. A suprapubic cystostomy opening is also present for practice in cystostomy management and maintenance. When performing catheterization, the penis must be manipulated to permit passage of the catheter, as in the male patient. The realistic simulation of the male genitalia also permits instruction in asepsis and disinfection. When actually performing catheterization, a **"one eye"** #18 French catheter is recommended for the most efficient use of the simulator. The simulator also demonstrates the appearance of the ostomy opening in the patient who has had a suprapubic stoma as a result of surgery on the bladder or prostate. All suprapubic cystostomy drainage and irrigation exercises can be performed on the simulator.



In order to perform male catheterization, this red flange must be removed and retained.



Attach the male organ by inserting the tube into the urethra and securing with Velcro



NOTE: ALWAYS USE A LUBRICANT WHEN INTRODUCING A CATHETER.

16. Decubitus Ulcers

A decubitus ulcer is caused by prolonged pressure in a patient confined to bed and in one position for a long period of time. They are also known as **pressure sores** or **bed sores**. The simulator is supplied with two of these ulcers. These ulcers are anatomically accurate. The first decubitus ulcer illustrates the initial stage of ulceration. The second decubitus ulcer illustrates the suppuration or pus/deeply infected stage.



17. Patient Training Arm and Hand Injection Simulator

This simulator is a training tool for infusion, blood collection, intravenous injection, intramuscular injection, TB screening and subcutaneous injection exercises.

The simulator is attached to the manikin, and is to be used connected to a blood dispensing bag. You may use the metal stand supplied or a conventional IV pole. The arm is also supplied with an amount of synthetic blood concentrate, and a spare arm skin. The arm and hand contain venous grooves, which are fitted with soft latex tubes that simulate the consistency of the veins. A translucent, pliable vinyl skin, which is removable and washable, is stretched over the venous structure, simulating the normal adult arm.

The arm features the following: (1) subcutaneous injection areas on the volar side of the forearm and the lateral side of the upper arm; (2) an intramuscular injection site in the deltoid area; and (3) two veins in the dorsum of the hand for additional intravenous training techniques.

In addition, the training arm contains simulated cephalic, basilic, antecubital, radial and ulnar veins. Simulated blood may be placed in the dispensing bag, which is equipped with a squeeze bulb. Applying pressure via the squeeze bulb permits the veins to stand out, simulating a clenched fist or tourniquet situation. Release of pressure simulates collapsed veins. Use of the squeeze bulb permits the palpability of the veins to be varied, as seen in routine hospital or emergency situations.



Note that the use of cannulas/needles larger than 21 gauge will shorten the life of the venistructure.

Replacing the skin and veins

- 1. To remove the vinyl outer skin, start at the top of the arm and remove by rolling it down and over the wrist. Use of water based silicone or talcum powder will ease movement.
- 2. Select a new skin and heat it in warm soapy water to a temperature of about 125 degrees F or about 50 degrees C. Dry the skin, and insert it onto the arm at the fist and pull the new skin up into place.
- 3. To replace the veins make sure you are not allergic to latex. Gaumard uses very pure latex veins to produce the best possible self-sealing possible.

Cleaning and repair of the training arm and hand

- 1. The skin of the training arm can be cleaned with a mild detergent, or soap and water. After drying the arm, lightly dust it with talcum powder. This will keep the training arm supple and easy to use.
- 2. If the venous system is blocked, first check that the tubes are not kinked. If blockage persists, remove the fist and flush veins with water.
- 3. Indelible marks made with ballpoint pens, ink or magic markers will remain.



18. AMPUTATION STUMP

Either lower leg may be removed and the amputation stump inserted.

SECTION 3 - CPR

The **S 303** is equipped with an articulating head and jaw, an intubatable airway with realistic chest rise, heart, ribs and lungs. It is also supplied with an electronic monitor to measure whether the ventilations and compressions are too low, too high or just right. Please follow the recommendations and instructions from the American Heart Association detailed in the *Basic Life Support Heartsaver Guide* manual.



Monitor is powered by a single 9 volt cell



Tube with red marking connects heart to monitor. Tube with blue marking connects lungs to monitor. Note that a switch permits either adult or pediatric monitoring.

SECTION 4 – AIRWAY MANAGEMENT



Use of a well-fitting mask will limit air leakage providing a visible chest rise.

Intubation Using a Straight or Curved Blade



Intubate using a MAC 31/2 or Miller 4 blade and a 7.0-7.5 mm endotracheal tube.

ALWAYS use a lubricant when intubating this simulator. Use water based silicone spray, a non-aerosol cooking spray, or soap and water. NEVER attempt to introduce an ET tube, NP tube, OP tube, or other invasive device without the use of a lubricant. Failure to use a proper lubricant may result in damage to the simulator.

SECTION 5 - BREAST EXAMINATION

INTRODUCTION

Breasts come in all shapes and sizes and do not remain the same throughout the life of an adult woman. There are variations due to the course of menstrual cycles, childbirth, breast feeding, age, and the use of birth control pills or other hormone related drugs.

Breast self examination should be done monthly, preferably at the end of a menstrual period. The post-menopausal woman should examine herself on a chosen day, or on a monthly basis. If a lump, dimpling of the nipple, or discharge from the nipple is noticed, the physician should be contacted immediately.

INSTRUCTIONS FOR USE

Breast examination should be done with the torso in a semi-upright position. Place the desired breast (s) in place and attach the skin. Feel the left breast with the right fingers and the right breast with the left fingers. Move the fingers in a circular movement around the breast. Move from the periphery toward the center until you reach the nipple. Raise the nipple gently. It should lift up without resistance.

Breast #1: Demonstrate and practice the movement of the mammary gland on the surface of the pectoralis major muscle, which lies directly under the breast.



Breast #2: Seven discreet nodes on one side, a somewhat larger node on the other side, and a very discreet puckered area around the nipple. This breast represents various stages of fibrocystic disease which is due to an endocrine imbalance and may be found in many normal women. The larger node may be felt either as a hard node or as a cystic mass or swelling.



Breast #3: There is a solitary tumor in the breast below. It is well circumscribed and has a stalk. The tumor can be moved, and is not adherent to breast tissue. It is benign and usually occurs in younger women.



Breast #4: Attach the Velcro on the nipple to the Velcro on the inside of the skin. This breast shows a retracted nipple and on careful palpation, a mass may be felt immediately under the nipple. This breast represents a carcinoma in one of the milk ducts and also shows the so-called "orange skin" effect.



Breast #5: The breast below shows a comparatively rare but easily palpable tumor: a giant sarcoma (or giant mammary myxoma) of which the wildly growing masses (the largest one shown in ulcerated form) can be easily felt and seen.



Breast #6: This form of breast cancer (scirrus carcinoma) is one of the more commonly encountered malignant tumors of the breast. When palpating, note the infiltrating nature of the growth. It has no well-defined borders and cannot be moved within the breast.



Breast #7: This replica of the lymphatic drainage of the left breast outlines the various pathways along which breast tumors metastasize. The auxiliary pathway, subclavian pathway, and internal mammary pathway are shown and are easily palpable. Initially, the instructor may find it worthwhile to examine and palpate the various pathological breasts without the bra in place.



SECTION 6 - GENERAL NOTES

1. Lubrication

ALWAYS USE A LUBRICANT WHEN INTRODUCING A CATHETER OR INVASIVE DEVICE. IN ADDITION, PLEASE NOTE THAT REPEATED STERILIZATION OF OLDER CATHETERS CAN CAUSE A VARIANCE IN CATHETER DIAMETER. SEVERAL CATHETERS SHOULD BE TRIED TO DETERMINE A PROPER FIT.

2. Catheters - Troubleshooting

There may not be an immediate outflow of water on introduction of the catheter into the bladder. Should blockage occur, use the blue squeeze bulb at the side of the lower torso to increase pressure in the bladder.

3. Emptying the Reservoir System

To remove the remaining fluid from the bladder reservoir after catheterization exercises are complete, lift the abdominal cover and remove the reservoir.

4. Filling of the Bladder

The bladder should be filled through the suprapubic opening. This may be done in one of two ways. Instillation of water (approximately 500 ml into the1800 ml tank) through introduction of an appropriate funnel at the suprapubic site; or, by using a catheter with a large syringe.

5. Cleaning

The manikin may be cleaned with a mild detergent, or with soap and water. Do not clean with harsh abrasives.

- Indelible marks made with ballpoint pens, ink, or markers will remain.
- Store the manikin in a cool area in the box provided. Do not stack heavy materials on top of the box
- Do not wrap the manikin or any **Gaumard** product in newsprint.

6. Removal of Internal tanks (reservoirs)

The lower torso contains several reservoirs for patient care exercises. Each is connected using "click" connectors permitting that reservoir to be removed and cleaned or replaced as needed.

SHOULD YOU HAVE ANY QUESTIONS AFTER READING THIS INSTRUCTION MANUAL, PLEASE CONTACT OUR CUSTOMER SERVICE DEPARTMENT FOR FURTHER ASSISTANCE:

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