

12.04.2021

Amendment No.3**Sub: Amendment to the referred tender enquiry****Ref.: Tender Enquiry HITES/PCD/AIIMS-IV/33/Nursing/19-20 Dated 11-03-2020 read with Notice on Extension of Due Dates dated 25.03.2020 read with Amendment no 1 & 2 dated 03.03.2021 & 25.03.2021 respectively.**

The following changes are being incorporated in the above referred Tender Enquiry Document.

SECTION I**NOTICE INVITING TENDER (NIT)****1) Existing:**

Sl. No	Tender_ID	Name of the Item
1	2021_HLL_72102_1	Patient Care Simulator
2	2021_HLL_72102_2	Patient care simulator externally controlled by electronic device
3	2021_HLL_72102_3	BLS Practising Manikin
4	2021_HLL_72102_4	ATLS Practising Manikin
5	2021_HLL_72102_5	Vein Puncture and injection arm
6	2021_HLL_72102_6	Gluteal IM Injection model
7	2021_HLL_72102_7	Nursing kid with simpad system
8	2021_HLL_72102_8	Nursing Baby with SimPad System (Infant)
9	2021_HLL_72102_9	Newborn Resuscitation Manikin
10	2021_HLL_72102_10	Full body pregnancy simulator
11	2021_HLL_72102_11	Embryonic/Fetal Development, Set of 9 Anatomical models
12	2021_HLL_72102_12	IUD Insertion Trainer Uterus
13	2021_HLL_72102_13	Difficult Airway management simulator
14	2021_HLL_72102_14	Physical assessment simulator
15	2021_HLL_72102_15	Tube feeding simulator (NG,OG and PEG)

Read as:

Sl. No	Tender_ID	Name of the Item
1	2021_HLL_72102_1	Patient Care Simulator
2	2021_HLL_72102_2	Patient care simulator externally controlled by electronic device
3	2021_HLL_72102_3	BLS Practising Manikin
4	2021_HLL_72102_4	ATLS Practising Manikin
5	2021_HLL_72102_5	Vein Puncture and injection arm
6	2021_HLL_72102_6	Gluteal IM Injection model

Sl. No	Tender_ID	Name of the Item
7	2021_HLL_72102_7	Pediatric Care Simulator
8	2021_HLL_72102_8	Infant Care Simulator
9	2021_HLL_72102_9	Newborn Resuscitation Manikin
10	2021_HLL_72102_10	Full body pregnancy simulator
11	2021_HLL_72102_11	Embryonic/Fetal Development, Set of 9 Anatomical models
12	2021_HLL_72102_12	IUD Insertion Trainer Uterus
13	2021_HLL_72102_13	Difficult Airway management simulator
14	2021_HLL_72102_14	Physical assessment simulator
15	2021_HLL_72102_15	Tube feeding simulator (NG,OG and PEG)

2) Tender timeline:

Existing:

Sl. No.	Description	Schedule
b.	Closing date & time for submission of online bids	13-04-2021, 1200 hrs
c.	Closing date & time for submission of tender processing fee in physical form*	14-04-2021, 1400 hrs
d.	Time and date of opening of online bids	14-04-2021, 1430 hrs

Read as:

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Sl. No.	Description	Schedule
b.	Closing date & time for submission of online bids	26-04-2021, 1200 hrs
c.	Closing date & time for submission of tender processing fee in physical form*	27-04-2021, 1400 hrs
d.	Time and date of opening of online bids	27-04-2021, 1430 hrs

SECTION VII

Technical Specifications

Technical Amendment		
NIB Ref: HITES/PCD/AIIMS-IV/33/Nursing/19-20 dated 11.03.2020		
Item No. 1 Patient Care Simulator (2021_HLL_72102_1)		
Tender Page & Para	Tender Specification	Amended as
Pg 47 Para 4	Irrigation of the eye and ear (simulated)	Irrigation of the eye and ear

Pg 47 Para 14	Subclavian, jejunostomy and Hickman catheter openings	Simulator should have facility to perform Subclavian and Jejunostomy opening
Pg 47 Para 15	Manually generated carotid pulse	Manually generated carotid pulse (Preferable)
Item No. 2 Patient care simulator externally controlled by electronic device (2021_HLL_72102_2)		
Tender Page & Para	Tender Specification	Amended as
Pg 48 Para 1	Manikins should have option for advance nursing procedure, including the measurement of noninvasive blood pressure and the auscultation and recognition of normal and abnormal heart, lung and bowel sounds when used with a wifi touch screen remote control with simpad/monitor connectivity	Manikins should have option for advance nursing procedure, including the measurement of noninvasive blood pressure and the auscultation and recognition of normal and abnormal heart, lung and bowel sounds when used with a remote control with monitor connectivity. Added Para : 1. The system should also be supplied with several virtual clinical patient monitor options 2. It should have simulated ICU patient monitor and should simulate physiological parameters including HR, ECG, SpO2, BP, RR, Temperature, etCO2,.
Pg 48 Para 5	Irrigation of the eye and ear (simulated)	Irrigation of the eye and ear
Pg 48 Para 15	Subclavian, jejunostomy and Hickman catheter openings	Simulator should have facility to perform Subclavian and Jejunostomy opening
Pg 48 Para 16	Manually generated carotid pulse	Manually generated carotid pulse (Preferable)
Pg 48 Para 22	Fingers and toes are spread to allow bandaging	Fingers and toes are spread to allow bandaging. Added para : 1. The manikin system should also help to teach specific learning objectives for postsurgical care regime towards patient assessment, dressing change and drain care.

		2. It should also allow teaching and training on the chests tube and central line care.
Item No. 3 BLS Practising Manikin (2021_HLL_72102_3)		
Tender Page & Para	Tender Specification	Amended as
Pg 49 Para 6	Audible or Visual feedback reinforces correct compression depth with clicker feature signals	Audible and Visual feedback with information regarding quality of chest compression including rate, depth and release/ non release and too deep compression with recording facility to improve muscle memories.
		Added Para: Virtual Defib and AED Monitor for defibrillation and AED training with the options to choose energy upto 360 joules. The AED monitor should allow simple prompts actions of 1-2-3 and metronome.
Item No. 4 ATLS PRACTISING MANIKIN (2021_HLL_72102_4)		
Tender Page & Para	Tender Specification	Amended as
Pg 49 Para 1	It should be useful for trauma assessment & Management skill. The product should have head which should facilitate facial and cranial trauma assessment including and open depressed skull fracture, deviated trachea, bilateral mandible fracture and fracture of the c-6, vertebare.	It should be useful for trauma assessment & Management skill. The product should have head which should facilitate facial and cranial trauma assessment including and open depressed skull fracture, deviated trachea, bilateral mandible fracture and fracture of the cervicle vertebare.
Pg 49 Para 3	The trauma intubation head should have an impaled object in the cheek, avulsed ear, unequal pupils, broken teeth and multiple lacerations.	The trauma manikin should facilitate simulation of multiple facial injuries
Para 19	Burns - 1"-2" and 3" degree	Burns - 1st -2nd and 3rd degree

Para 21	Abdominal evisertain	Abdominal evisceration
Item No. 7 Nursing Kid with SimPad System (2021_HLL_72102_7)		
Tender Page & Para	Tender Specification	Amended as
Item Name	Item No. 7 Nursing Kid with SimPad System	Item No. 7 Pediatric Care Simulator
Pg 52 Specifications	Nursing Kid is a full-body, lifelike manikin realistically representing a six-year old child designed for skill and scenario-based training of a complete range of pediatric care procedures. Nursing Kid with SimPad sounds technology allows for auscultation and recognition of normal and abnormal heart, breath and bowel sounds.	It should be a full-body, lifelike manikin realistically representing a child designed for skill and scenario-based training of a complete range of pediatric care procedures. It should allow for auscultation and recognition of normal and abnormal heart, breath and bowel sounds.
Pg 53	Easy Operation with the SimPad PLUS System: Nursing Kid can be operated via the SimPad PLUS System making scenario based training easier than ever before. The SimPad PLUS System provides an easy and efficient way to run simulations:	The System provides an easy and efficient way to run simulations:
	Product Includes: Pediatric Full-body Male Manikin Multi-Venous IV Training Arm Hospital Gown Manikin Lubricant Assembly Tool Kit Nursing Kid is available in Light, Tan, and Brown skin tones.	It should Includes: Pediatric Full-body Male Manikin Multi-Venous IV Training Arm Hospital Gown Manikin Lubricant Assembly Tool Kit

	<p>Articulating IV Training Arm:</p> <ul style="list-style-type: none"> · Allows peripheral intravenous therapy and site care · Venipuncture is possible in the antecubical fossa and dorsum of the hand · Accessible veins include median, basilic and cephalic · Replaceable skin and infusible vein system 	<p>Articulating IV Training Arm and IO training leg :</p> <ul style="list-style-type: none"> a. Allows peripheral intravenous therapy and site care b. Venipuncture is possible in the antecubical fossa and dorsum of the hand c. Accessible veins include median, basilic and cephalic d. Replaceable skin and infusible vein system <p>Added Para :</p> <ul style="list-style-type: none"> e. Allows intraosseous at tibia and site care. f. Replaceable intraosseous access site with 5nos. of extra access site, should be supplied along with the system
Item No. 8 Nursing Baby with SimPad System (Infant) (2021_HLL_72102_8)		
Tender Page & Para	Tender Specification	Amended as
Item Name	Item No. 8 - Nursing Baby with SimPad System	Item No. 8 : Infant Care Simulator
Pg 53 Specifications	Nursing Baby is designed for simulation and practice of a range of infant patient care procedures. Nursing Baby with SimPad sounds technology allows for auscultation and recognition of normal and abnormal heart, breath and bowel sounds.	Infant Care Simulator should allow for simulation and practice of range of infant patient care procedures. It should present normal and abnormal heart, breath, and bowel sounds for auscultation
Pg 53 Para	Specifications Nursing Baby is available in Light, Tan, and Brown skin tones.	Deleted

Pg 55 Simulated Parameters	<p>Simulated Parameters</p> <ul style="list-style-type: none"> · User can set blood pressure level and make it gradually change over time · User can set temperature level (in Celsius or Fahrenheit) and make it change gradually over time · User can set the SpO2 level and make it change gradually over time · Blood pressure, temperature and SpO2 will be displayed on the Sim Pad (handheld) and optional Patient Monitor 	<ol style="list-style-type: none"> 1. The system should also be supplied with several virtual clinical patient monitor options 2. It should have simulated ICU patient monitor and should simulate physiological parameters including HR, ECG, SpO2, BP, RR, Temperature, etCO2,.
Pg 54	IO Training	Replaceable intraosseous access site with 5nos. of extra access site, should be supplied along with the system
Item No. 9 New Born Resuscitation Manikin (2021_HLL_72102_9)		
Tender Page & Para	Tender Specification	Amended as
Pg 55 Para	<p>Product Features:</p> <ul style="list-style-type: none"> · Newborn Anne accurately represents a full term (40 week), 50th percentile newborn female, measuring 21 inches and weighing 7lbs. · The airway is designed to allow for training in all aspects of newborn airway management, including the use of positive-pressure airway devices, and the placement of ET tubes and LMAs. · The torso includes functionality to relieve a tension pneumothorax via needle decompression. · The patent umbilicus has a manually generated pulse and can be assessed, cut and can be catheterized for IV access. · Newborn Anne features IO access in both legs. 	<p>Product Features:</p> <ol style="list-style-type: none"> 1. It should be a full term new born Resuscitation Manikin. 2. The airway is designed to allow for training in all aspects of newborn airway management, including the use of positive-pressure airway devices, and the placement of ET tubes and LMAs. 3. The torso includes functionality to relieve a tension pneumothorax via needle decompression. 4. The patent umbilicus has a manually generated pulse and can be assessed, cut and can be catheterized for IV access. 5. Deleted

Pg 56 Para Vascular Access Point 2	IO access in left and right lower leg, tibial tuberosity and medial malleolus	Deleted
Page 55 under Airway Features	Meconium module for suction removal	Deleted

Item No. 10 Full Body Pregnancy Simulator (2021_HLL_72102_10)

Technical Specification may be read as

Sl. No.	Description
1	Maternal-Fetal Simulator complete with anatomically realistic mother and fetus for comprehensive training in prenatal care, labor and delivery, and postpartum care.
2	High fidelity simulator with an automated delivery mechanism and maternal aesthetics like a real patient.
3	The birthing mechanism should be noiseless for realistic labour.
4	All maneuvers & interventions should result in appropriate patient response automatically based on underline physiology of patient without any input from the instructor
5	Birthing simulator should includes a birthing fetus and a second fetus especially designed for Leopold's maneuvers
6	Maternal fetal simulator should have voice linked to labour and should allow upload of voice files in any local language (Preferable)
7	Simulator should support full maternal code as a non-gravid patient and should be supplied with non-gravid abdomen and scenarios for the same.
II	Simulator should have following features:
1	Should have realistic birth canal with vulva/perineum supporting accurate fetal descent and rotation
2	Should provide Multiple Birthing Positions: lithotomy, sitting, and all-fours
3	Should allow vaginal examinations for evaluation of the cervix, fetal station, and position
4	Should have static cervixes representing various stages of dilation (closed to 10cm); effacement from 0-100%
5	Should have palpable uterine contractions which can be detected by palpating the fundus
6	Should have facility to allow Instructors to control the rate and duration of contractions
7	Birthing fetus should not have any connection port at the head or buttocks for realistic presentation during both vertex and breech deliveries (Preferable)
8	Fetus/baby should have open mouth for meconium removal & cyanosis treatment

9	Should support and detect McRoberts Maneuver
10	Should support and detect suprapubic pressure with palpable symphysis pubis
11	Should simulate realistic shoulder dystocia due to realistic pelvic bone movement and it should be resolved once posterior arm is extracted
III	Internal rotations with detection
	a. Should support delivery of posterior arm during shoulder dystocia
	b. Should allow Zavanelli maneuver with detection and logging in event log
	c. Trendelenburg position with detection and logging in event log
	d. Left lateral tilt with detection and logging in event log
	e. Vertex and breech delivery with no exposed metal parts
13	Should have Fetal heart sounds – 4 locations based on fetal presentation
IV	Should have clinically accurate fetal size with tactile realism – 5th percentile on the WHO growth chart
	a. Fetus with palpable fontanel and sagittal suture
	b. Should allow Forceps application
	c. Should allow Vacuum extraction without fetal cap
	d. Should provide fetal neck traction graph to give real time feedback on force applied during vacuum or forcep delivery
	e. Should allow Fetal airway suctioning
	f. Fetus should have audible cry upon delivery
	g. Should display predicted 1-minute and 5-minute APGAR scores based on integrated maternal-fetal physiology
	h. Should simulate postpartum hemorrhage
	i. Should allow for assessment of uterine atony (Contracted vs. Boggy Uterus)
	j. Should have facility bimanual compression and uterine massage detection
V	Should exhibit:
	a. Uterine blood released upon massage
	b. Uterine massage should automatically decrease rate of blood flow
	c. Uterine massage compression effect
	d. Uterine inversion
	e. Should support placing an Intrauterine balloon
	f. Umbilical cord can be cut and clamped
	g. Episiotomy should be possible
	h. Should have Intact/fragmented placenta with realistic color, texture and flexibility, placenta can be delivered with gentle traction
	i. Should have an epidural port for realistic infusion and aspiration (Preferable)
	j. Should allow to recognize sign for emergency C-section for team training of C- Section.
VI	Mannequin should have following clinical features
	a. Respiratory
1	Manikin should have realistic upper airway with airway management
2	Should have Advanced lungs with mechanical ventilation support

3	Should allow use of airway devices such as LMA
4	Should Support endotracheal tubes, nasal-pharyngeal and oropharyngeal airways
5	Should display spontaneous breathing
6	Should have bag-valve-mask
7	Should exhibit lung sounds: anterior and posterior
8	Should have realistic chest excursion & Exhalation
9	Should allow positive pressure ventilation
10	Should have advance CPR matrices
	b. Circulatory System
1	Should support real 4-lead ECG that can be connected to simulator
2	Should display 12-lead ECG simulated in software
3	Should have bilateral pulses: carotid, radial, and dorsalis pedis; with controllable pulse strength
	c. Cardiovascular
1	Should allow Chest compressions resulting in appropriate physiological changes.
2	Should have advanced CPR metrics to measure the consistency of compressions and ventilations, as well as coronary and cerebral perfusion. Hand placement, chest recoil, and left lateral tilt should be detected and logged by the operating system.
3	Should support electrical therapy (defibrillation)
4	Should allow Bilateral NIBP measurement
5	Should have realistic Heart sounds linked to the physiology of the patient.
	d. Nervous System
1	Should simulate seizures with rhythmic movement of arms, rapid blinking, and jaw movement
2	Should have Reactive pupils
3	Should have facility to change the colour according to condition of the patient like yellow for jaundice, red in case of blood clot
4	Should have Blinking eyes
5	Should have live and pre-recorded speech and should also have ability to import customized vocal sounds into system software
	e. Fluids
1	Should have inbuilt postpartum bleeding tank at-least (1,800 ml)
2	Should have Bilateral IV arms with realistic flashback
3	Should have Urinary catheterization
VII	Patient Profiles & Scenarios
1	Should be supplied with preprogrammed patient profiles with system software to write patient profiles as per training needs
2	Should be supplied with pre programmed clinical scenarios (at least 20 nos.) with system software to modify existing scenario & write new scenarios as per training needs
A	Pre programmed clinical scenarios for gravid patient should include:
	a A normal delivery

	b An instrumental vaginal delivery
	c Fetal Tachycardia due to Maternal Pyrexia
	d Maternal cardio-respiratory arrest
	e Fetal central nervous system depression by narcotics given to the mother
	f Eclampsia
	g Major post-partum hemorrhage due to uterine atony
	h Breech delivery
	I Shoulder dystocia
	j Umbilical cord prolapse
B	Urgent Obstetric simulated clinical Experiences (SCEs)
	a. Anaphylactoid Syndrome of Pregnancy
	b. Chronic fetal Hypoxia Associated with Placental insufficiency
	c. Oxytocin induced uterine tachysystole
	d. Repetitive deceleration caused by umbilical cord compression
	e. Uncontrolled gestational diabetic
	f. Fetal Heart rate signal loss
	g. Inadvertent monitoring of maternal heart rate
	h. Major placental abruption
	i. Maternal hypotension follow Epidural Block
	j. Maternal Sepsis
C	Pre programmed clinical scenarios for non-gravid patient should include :
	a Chronic Heart failure exacerbation
	b. Acute Respiratory Distress Syndrome
	c Sepsis with Hypotension
	d. Brain Attack with Thrombolytic Therapy
	e Motor Vehicle Collision with Hypovolemic Shock
VIII	Audio Video Recording System
	1. Microphone – 1 no
	2. Cameras – 2 nos
	3. Computer to be supplied with system for display and control
	4. Suitable server - Ability to capture and video output (display), Intel Core i5 or latest, quad core or better , 1TB internal HD storage with 8 GB RAM
IX	EVENT LOG:
1	The simulator must include physiological, pharmacological event data that is logged and timed stamped.
2	The log must automatically calculate and log the following items:
	a. Alveolar and blood gases
	b. Cardiac Output
	c. Heart rate
	d.SPO2

	e. Invasive blood pressure
	f. Hematocrit and hemoglobin values
	g. Temperatures
3	The event log must be able to be saved and printed.
X	CONTROL SYSTEM: Control system should be expandable for future software up-gradation.
	Should be supplied complete with
	a Maternal mannequin - 01 no.
	b Software License - 04 nos.
	c Fetus for Leopold's maneuvers - 01 no.
	d Abdominal for labor - 01 no.
	e Abdominal for Post Labor - 01 no.
	f Static cervixes for vaginal examination - 01 set
	g Instructor laptop – 01 no.
	h Simulated CTG Monitor – 01 no.
	I Delivery Table- 01 no.
	j The system shall be supplied one set of Stethoscope, Laryngoscope, LMA, Patient bed with IV stand, Resuscitation cart, Resuscitator Bag.

Item No. 12 IUD Insertion Trainer Uterus (2021_HLL_72102_12)		
Tender Page & Para	Tender Specification	Amended as
Pg 58 Product Details	A compact hand-held IUD Insertion Trainer Uterus for demonstrating and perfecting IUD insertion technique. A variety of IUD's may be used. IUD not included.	A compact hand-held IUD Insertion Trainer Uterus for demonstrating and performing IUD insertion technique.
Pg 58	Features: · Normal uterus · Clear plastic window permits easy viewing of IUD · Plastic window tilts open to permit removal of IUD	Features: a. Should have Normal size uterus and post partum uterus b. Clear plastic window permits easy viewing of IUD c. Plastic window tilts open to permit removal of IUD d. Should be provided with PPIUCD forceps, sponge holding forceps, sim's speculum and cusco speculum
Item No. 13 Difficult Airway management simulator (2021_HLL_72102_13)		
Tender Page & Para	Tender Specification	Amended as

Pg 58 Para 3	The incisors should be removable when excessive force is applied	a. The incisors should be removable when excessive force is applied b. The airway training model should indicate and alert instructor/ faculty excessive pressure on incisors (Preferable)
Pg 58 Para 13	Confirmation of successful ventilation by indicators.	a. Confirmation of successful ventilation by indicators. b. It should be able to teach students how to respond in a vomiting or aspirational pneumonia complications by creating a vomiting scenario (Preferable).
	Suggested by Bidder	Added para : Should allow following variation of difficult airway management settings a. Neck Flexibility-Normal and Rigid b. Mouth opening-Normal Intermediate and difficult c. Tongue-Normal & Swollen (Preferable) d. Laryngospasm-Normal and Laryngospasm (Preferable)
Item No. 14 Physical assessment simulator (2021_HLL_72102_14)		
Tender Page & Para	Tender Specification	Amended as
		Added para: It should allow training and assessment of- a. Blood Pressure (BP) Palpation and Auscultation b. Bilateral Carotid, Brachial, Radial, Femoral and Pedal Pulses c. Heart, Lung, Bowel and Vocal Sounds d. Palpable Anatomical Landmarks (Anterior, Posterior, Axilla) e. Eye examination for blinking and pupils f. Normal, Constricted and Dilated

		Pupils g. The physical assessment training system should allow for evaluation of patient consciousness, eye opening, respiration (Preferable)
Pg 59 Assessment Item	ECG simulation	Deleted
Item No. 15 Tube feeding simulator (NG,OG and PEG) (2021_HLL_72102_15)		
Tender Page & Para	Tender Specification	Amended as
Pg 59 Para 3	The transparent structure allows direct observation of progress and placement of the tube	The transparent structure allows direct observation of progress and placement of the tube (Preferable)

All other contents of the Tender enquiry including terms & conditions remain unaltered.

Note:

- I. Prospective Bidders are also advised to check the website regularly prior to the closing date and time of online submission of bids**