CARL SANDBURG COLLEGE SPECIFICATIONS

Patient Simulator

SPECIFICATIONS

Minimum specifications for (2) two Patient Simulators are listed below and each bidder must state to the right of listed specifications the compliance details that pertain to the unit bid indication size, quality, and range of information as necessary to determine unit quality. Bidder's specifications must meet or exceed minimum specifications and must be listed in detail to be considered to be a qualified bidder. All specifications shall meet or exceed the following specifications.

The final selection will be made on factors including price, availability, service, etc., which we feel to be in the best interest of the college. Questions regarding these specifications should be directed to Dr. Emily Schaeffer, Dean of Nursing Professions, phone: 309-341-5253 or email eschaeffer@sandburg.edu.

The Carl Sandburg College of Nursing seeks bids from qualified vendors for the provision of two (1 adult, 1 pediatric) realistic, full-body, wireless patient simulator manikin systems designed for scenario-based training for the care and management of basic patient handling skills to advanced nursing skills. This is a combination bid that requires a price for both simulators. Delivery of both simulators must be no later than June 30th, 2023.

Adult Patient Simulators Please note deviations and/or exceptions from 1. Multiple airway skills/features ♣ Controllable open/closed airway that is automatically or manually controlled ♣ Head tilt/chin lift capabilities ♣ Jaw thrust w/articulated jaw ♣ Suctioning capabilities (both oral and nasopharyngeal) ♣ Bag-mask ventilation ♣ Orotracheal intubation ♣ Nasotracheal intubation ♣ Combitude, LMA, and other airway placement ♣ Variable lung compliance ♣ Variable airway resistance ♣ Right main stem intubation Stomach distension 2. Breathing Features Simulated spontaneous breathing ♣ Bilateral and unilateral chest rise and fall ♣ CO2 exhalation ♣ Normal and abnormal breath sounds - 5 anterior auscultation sites

	- 6 posterior auscultation sites ♣ Oxygen saturation and waveform	
3.	Airway Complications Detection of proper head position Can't intubate/ventilate Tongue edema Pharyngeal swelling Laryngospasm	
4.	Circulation Features BP measures manually by auscultation of Korotkoff sounds Carotid, femoral, radial, dorsalis pedis, posterios tibalis pulses synchronized with ECG Pulse strength variable with BP Pulse palpitation is detected and logged	
5.	Vascular Access ♣ IV arm (ability to establish an IV) ♣ Intraosseous access (tibia) ♣ Automatic drug recognition system	
6.	Circulatory Skills and IV Drug Administration Articulating IV training arm with replaceable skin and infusible vein system allows peripheral intravenous therapy and site care Venipuncture possible in the antecubital fossa and dorsum of the hand Accessible veins including media, basilica and cephalic	,
7.	CPR • Compliant with 2015 Guidelines • CPR compressions generate palpable pulses, blood pressure wave form, and ECG artifacts • Realistic compression depth and resistance • Detection of depth, release and frequency of compressions • Hand position sensor	

8. Eyes

♣ Blinking eyes (slow, normal, fast, and

winks)	
♣ Eyes open, closed and partially open	
♣ Pupillary accommodation:	
- synchrony/asynchrony	
- normal and sluggish speed of response	
Other Features	
♣ Seizure	
* Bleeding	
Simulation of bleeding at multiple sitesArterial and venous	
- Vital signs automatically respond to	
blood loss and therapy	
- Works with various wound modules and	
moulage kits • Uring output (variable)	
Urine output (variable)Falsy authorization	
* Foley catheterization	
♣ Bowel sounds – four quadrants	
A Patient voice	
- Pre-recorded sounds	
- Custom sounds	
- Instructor can simulate patient's voice	
wirelessly	
Pharmacology	
Automatic drug recognition system	
identifies drug and dose	
* Extensive drug formulary	
Automatic or programmable physiological	
responses System Factures	
System Features	
* Wireless tablet PC controls simulator	
remotely	
Ability to control multiple manikins from one	
interface	
* Control simulations from anywhere on your	
network	
Multiple interfaces can control/observe a single simulation	
single simulation	
* Instructor mode Procise control "on the fly"	
- Precise control "on the fly"	
Design and program custom scenariosCreate custom events	
- Run pre-packaged scenarios	
Ability to function in auto mode	
- Physiological and pharmacological	
models run pre-packaged simulations	
- Unique, simple slider control difficult	

Airway is anatomically modeled as far as the trachea.	
Pediatric Patient Simulator 1. Airway features	Please note deviations and/or exceptions from
6. Estimated Delivery Date	
5. Warranty & support	
♣ Custom Video Display	
♣ Custom Image Display	
parameters 4 12 Lead ECG Display	
- Additional and programmable	
Cardiac outputTemperature (core and peripheral)	
- TOF	
- NIBP	
- PAP - PCWP	
- PTC	
- Allesthetic Agent - PH	
- ICP - Anesthetic Agent	
- CVP	
- CO2 - ABP	
- SpO2	
- ECG	
Highly configurableIncludes	
• Wireless	
Patient Monitor	
• Histractor comments	
Data loggingInstructor comments	
♣ Integrated video debriefing	
save/restore	
Simulation controlsFast forward, pause, rewind,	
and pace	

	♣Realistic airway with landmarks	
	♣ Oral and nasal intubation	
	♣LMA or ET insertion	
	♣Tongue edema	
	♣NG tube insertion	
	♣Cricoid cartilage	
	♣ Head tilt & jaw thrust	
2.	Breathing Features	
	♣ Spontaneous breathing with chest rise	
	♣ Variable respiratory rates	
	♣ Multiple upper airway sounds	
	♣ Bag Valve Mask capable	
	♣ Oxygen saturation and waveform	
	♣ Breathing complications	
	♣ Lungs can be closed or open to allow ventilations _	
3.	Cardiac Features	
	♣ Defibrillation and cardioversion	
	♣ Pacing	
	♣Extensive ECG library	
	♣ Multiple heart sounds synchronized with ECG	
	♣ ECG rhythm monitoring	
	♣ 12 lead ECG display	
4.	Circulation Features	
	♣ Blood pressure measured manually by	
	auscultation of Korotkoff sounds	
	♣ Bilateral carotid and unilateral brachial and radial pu	alses synchronized with ECG
	♣ Pulse strength variable with BP	
	♣ Pulse palpation detected and logged	
	♣ CPR compressions generate palpable pulses,	
	blood pressure waveform, and ECG artifacts	

5.	Vascular Access		
	♣ IV access (right arm and hand)		
	♣ Intraosseous access (right tibia)		
6.	Additional Features		
	♣ Interchangeable pupils - normal, dilated, and		
	constricted		
	♣Sounds: Heart, lung, bowel, and patient voice		
	(pre-recorded sounds and wireless microphone)		-
7.	Control multiple manikins from one interface		
	♣ Manual Mode to run "on-the-fly" for total control		
	over all parameters		_
	♣ Automatic Mode with pre-programmed		
	scenarios		_
	* Simulation controls; fast forward, pause, rewind,	save/restore	_
	♣ Integrated video debriefing		
	♣ Time stamped activities, vital signs, and instructo	r	
	comments are captured in the event log		
5.	Warranty & support		_
6.	Estimated Delivery Date		_