



Incorporating IPE into Lab: Meeting Objectives and Facing Challenges in Planning an Artificial Airway Management, safety Room and Skills Lab

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utmb Health

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Background

WHO identified IPE as vital to creating a global health system and improving patient outcomes


Collaboration should be emphasized throughout our careers, starting in educational programs

UTMB requires 4 activities planned by the IPE department and 4 “elective” activities

This activity is an “elective” opportunity, but is mandatory for nursing students

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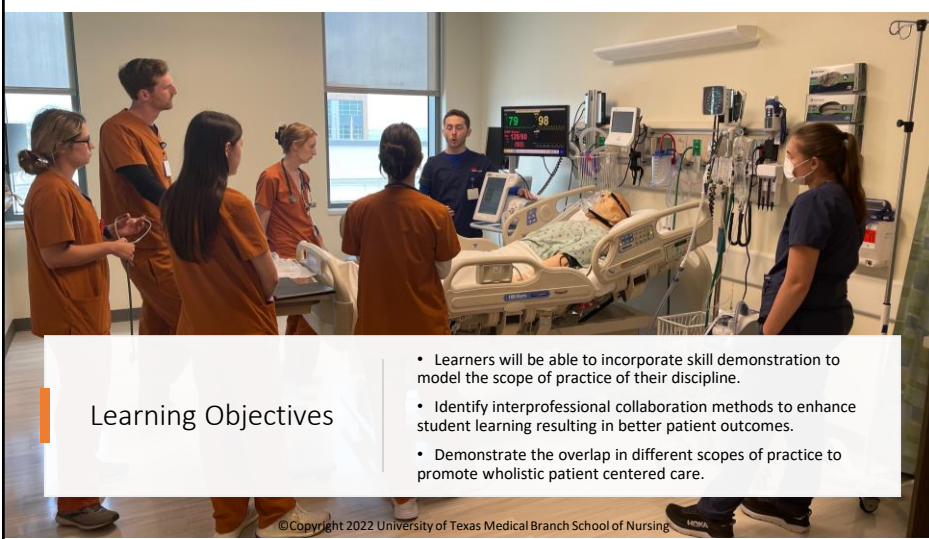


Purpose

- IPE activity created to meet objectives of nursing and respiratory school objectives and outcomes
- Provides students with an opportunity to learn about other healthcare members' scope of practice

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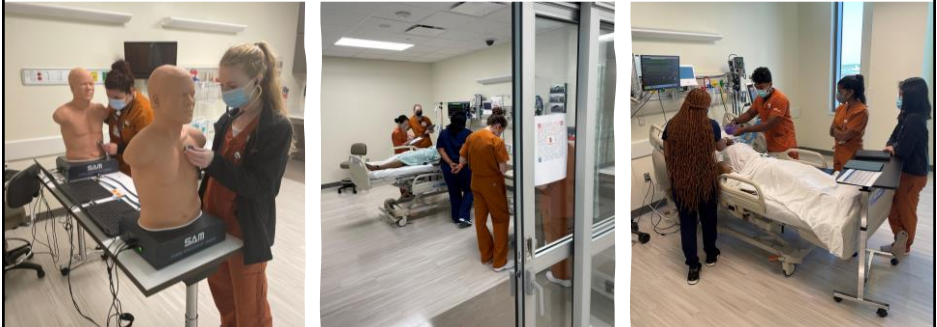


Learning Objectives

- Learners will be able to incorporate skill demonstration to model the scope of practice of their discipline.
- Identify interprofessional collaboration methods to enhance student learning resulting in better patient outcomes.
- Demonstrate the overlap in different scopes of practice to promote wholistic patient centered care.

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3 Part Lab:
 Day 1: Artificial Airway Management and Troubleshooting and Safety Rooms
 Day 2: Skills Lab

Skills Lab Safety Rooms Lab Artificial Airway Management and Troubleshooting

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Artificial Airway Management and Troubleshooting

- RT students teach BSN students, demonstrating content mastery
- Provides opportunity for students to practice
- RN students learn about RT role through demonstration
- Students can see how these professions collaborate in the clinical setting

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5 Mechanical Ventilator Simulations

Each simulation has a different issue that needs to be resolved


1. Mechanical Ventilator high pressure alarm
2. Mechanical Ventilator disconnect alarm
3. Right mainstem intubation
4. Tracheostomy tube and airway clearance
5. Non-invasive (NIV) and Heated High Flow Nasal Cannula (HHFNC)

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Artificial Airway Management and Troubleshooting- Emergent Interventions

- Demonstrate and practice manual resuscitation off the ventilator
- Demonstrate and practice manual resuscitation and sterile suction



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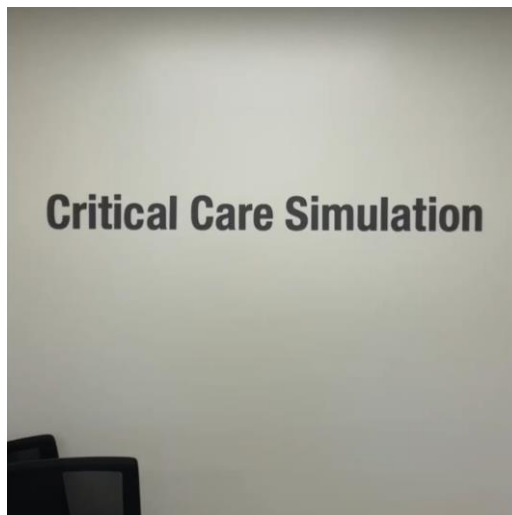
Safety Rooms

- Identify safety concerns in the ICU
 - Environmental
 - Abnormal labs, assessment findings, concerns
 - Deterioration of health status
 - Incomplete or missing orders
- Determine appropriate interventions for safety concerns
- Prioritize safety concerns

Safety Rooms: Instructions

- Prebrief
 - Instructions
 - Report
 - Chart
- Safety Rooms
 - Identify all safety concerns
 - Do not correct
 - May work as a group or independently
- Debrief
 - Discuss safety concerns
 - Prioritize- high, medium low

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CHERRY - LAB REPORT

CHEMISTRY	DATE TIME	DATE TIME	DATE TIME	UNITS
CHOLESTEROL	27	10/27/21	10/27	mg/dL
ALT	27	10/27/21	10/27	U/L
ALBUMIN	25	10/27/21	10/27	g/dL
AMYLASE	22	10/27/21	10/27	U/L
AST	22	10/27/21	10/27	U/L
BUN	31	10/27/21	10/27	mg/dL
BILIRUBIN	0.1	10/27/21	10/27	mg/dL
CR	0.8	10/27/21	10/27	mg/dL
GLUCOSE	100	10/27/21	10/27	mg/dL
HAEMOGLOBIN	15.5	10/27/21	10/27	g/dL
HAEMATOCRIT	45	10/27/21	10/27	%
PLATELETS	245	10/27/21	10/27	1000
WBC	10.5	10/27/21	10/27	1000
DIFFERENTIAL		10/27/21	10/27	%
NEUTROPHILS	78	10/27/21	10/27	%
LYMPHOCYTES	18	10/27/21	10/27	%
MONOCYTES	2	10/27/21	10/27	%
EOSINOPHILS	0	10/27/21	10/27	%
PLASMA	1.2	10/27/21	10/27	g/dL
PROTEIN	8.2	10/27/21	10/27	g/dL
ALBUMIN	4.2	10/27/21	10/27	g/dL
GLOBULIN	4.0	10/27/21	10/27	g/dL
ALBUMIN/GLOBULIN	1.05	10/27/21	10/27	
PROTEIN/CREATININE	100	10/27/21	10/27	mg/mmol
CREATININE	0.8	10/27/21	10/27	mg/dL

Priority Level?

- High: Life threatening, needs immediate attention
- Medium: Potential threat to immediate health/safety
- Low: Can wait till other tasks are addressed

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Skills Lab Background

- Modeled with a hands-on, audio tour at a museum with video component
- Encourages learning in styles conducive to individual students
- 13 Keynotes
 - 5-15 minutes each
- 11 Stations
- 3-4 faculty rotate around to answer questions
- 4 hours to complete
- Allows faculty to cover more content



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Skills Lab

- Keynote content
 - Arterial Lines
 - Cardioversion
 - Central Venous Pressure
 - Chest Tubes
 - Code Carts
 - Defibrillation
 - Log Roll
 - Nasogastric Tubes Vs. Dobhoff Tubes
 - Pacing
 - Pulmonary Artery Catheters
 - Trauma Catheters
 - Quinton Catheters
 - Ventriculostomy
- Includes learning activities for each station
- Stations without keynotes
 - Head to Toe Assessment Practice
 - Heart and Lung Assessment/ Chest Tube/ Arterial Line Practice

STUDENT REQUIRED SKILL ACTIVITY

- Identify the A-line
- What's the rationale for having an A-line?
- Perform an assessment on the A-line
- Determine which waveform correlates with the A-line
- Identify if this waveform is normal

How do chest tubes work?

Chest Drainage Unit

WHAT TO ASSESS?

START AT THE PATIENT AND WORK BACKWARDS.

1. Check site and patency
2. Check for air or blood in line
3. Is there enough NS?
4. Check pressure level
5. Does the line need to be zeroed?

TAP HERE TO SEE HOW TO CHECK PRESSURE LEVEL

START OF SHIFT AFTER REPOSITIONING TROUBLE SHOOTING VERY VERY ACCURATE BP

BACK TO FOCUS POINTS

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Skills Lab

Cory Zon Payne

Brief Patient History:

Chief Complaint: Chest Pain, shortness of breath

PMH: HTN, HLD, diabetes

Reason for Admission: Coronary Artery Bypass (CABG) x 3

Student Learning Objectives:

- Assess a patient with a PAC, CVP, A-line and chest tube
- Assess the depth of the PAC
- Identify CVP and consider factors that impact CVP and how CVP is used in patient management
- Identify what the rationale is for the Chest Tube on this patient
- Understand what abnormal assessment findings would be for A-line, PAC, CVP and chest tubes and what those abnormal findings indicate and what nursing interventions the nurse should implement
- Identify normal waveforms for A-line, PAC and CVP

Critical Thinking Questions:

- How would you determine if the PAC has moved? What would be the priority intervention of the nurse if they found the PAC has moved when assessing their patients?
- Is the A-line waveform normal? What does an abnormal waveform indicate? What are the priority nursing interventions if the waveform is abnormal?
- What is the purpose for a chest tube after a patient has had heart surgery?
- What chest tube assessment findings would be worrisome?

- Students are provided with Key notes in advance to review
- A checklist with the skills in each station and station room number is provided
- Each station has critical thinking questions
- Some stations are "mini case studies"
 - Designed to put concepts into practice
 - Students get brief histories on these patients
- Most stations have multiple keynotes that apply
 - For example: Arterial lines, central venous pressure, chest tubes and pulmonary artery catheters are all presented together in a mini coronary artery bypass graft case

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Skills Lab IPE: Same activity, different expectations

BSN Students

- Content expanded on in didactic
- Content included on exams
- Mandatory lab
- Must pass a critical thinking quiz at the end of the lab
- SON is Apple designated school
 - All nursing students are issued an iPad and told to bring headphones

RT Students

- Opportunity to learn about ICU equipment
- Content not included on exams/quizzes
- Attendance tracked through clock in app
- Students who have iPads bring them and share
- Start time may vary due to other course commitments

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Getting Started

Initial planning meeting

- What will this look like?
- Do our objectives align?
- Create objectives
- Will this serve all students?

Artificial Airway Management & Troubleshooting

- Determined topics
- Need for flexibility
- Remember limitations by practice (i.e. BSN students suction 2-3x then call for help, but RT keeps suctioning)

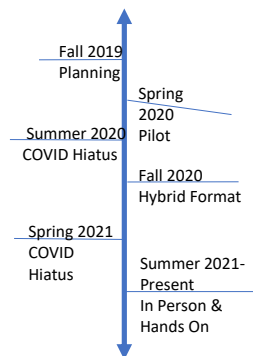
Safety Rooms

- Create a list of safety concerns
- Create case studies or build off existing case studies
- This is "moment in time," not an actively worsening patient

Skills Lab

- Identify skills to teach
- Create critical thinking questions
- Build keynotes

Implementation Timeline



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Potential Concerns/ Struggles We've Faced

- Scheduling. Scheduling. Scheduling.
 - Different academic calendars between programs
 - Complex day off schedule can be challenging to follow
 - BSN students completed Forms form with their schedule
- COVID guidelines and interruptions
- Different Cohort Sizes
 - 100-130 RN Students
 - 7-15 RT Students

The top screenshot is titled 'September 2022 RN Activity - RN Activity Management and Scheduling - Registrar and RN Students - ALL RN Plan'. It shows a grid with columns for 'Group 1' through 'Group 5' and rows for 'Week 1' through 'Week 5'. The cells are color-coded: Group 1 is green, Group 2 is grey, Group 3 is orange, Group 4 is yellow, and Group 5 is light blue.

The bottom screenshot is titled 'September 2022 RN Activity - Safety Science - Respiratory and RN Students - SEC'. It shows a similar grid with columns for 'Group 1' through 'Group 5' and rows for 'Week 1' through 'Week 5'. The cells are color-coded: Group 1 is grey, Group 2 is green, Group 3 is yellow, Group 4 is orange, and Group 5 is light blue.

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Thank you!

QR Code for
Code Skills
in Keynote



QR Code for
Code Skills
in
PowerPoint
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Questions
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