Virtual Interprofessional (VIP) Learning

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Current MUSC IP Education Initiatives

- IP 710: Transform Healthcare for the Future
- IP Day
- MUSC Team Up For Better Health
- IP Elective Courses
- Healthcare Simulation Experience
- Presidential Scholars Program
Challenges of Interprofessional Education

- Space
- Location
- Clinical Experiences
- Schedules
- Static
- Siloed
Addressing the Challenges of IP Education

• Online experiential learning
• Asynchronous
• Dynamic
• Variety of IP clinical learning experiences
Development of VIP Learning

1. Identify VIP Learning Content
2. Design VIP Learning Scenario
3. Create VIP Learning Platform and Avatar Gaming System
VIP Objectives

- Patient Care Quality and Safety
  - Root Cause Analysis & Communication

- Institute for Healthcare Improvement and Interprofessional Education Collaborative (IPEC) Competencies
Development of VIP Learning

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Design VIP Learning Scenario
Development of VIP Learning

1. Identify VIP Learning Content
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VIP Learning Platform
VIP Learning Database

Flow Charts
Add/Edit Logical Paths

- Case Introduction
- SCRA appropriate
- Identify Team
- Information Gathering
- What happened
- Should have happened
- Determine Cause
- Causal Statements
- Actions
- Summary and Share

- How will you identify what happened?
  - Create a flowchart
  - 5 Whys Analysis
  - Gather information

- Interview Hospital Staff
- Call Primary Care Provider
- Call Pharmacy
VIP Learning Database
Testing VIP Learning

- Interprofessional Students
- VIP embedded in online learning platform
- Orientation
- Virtual World Experience
- Evaluation
Chat with your team

should involve the pharmacist since the patient was started on Coumadin?

- VIPTest2: 8/1/18 11:19 AM What about making sure the patient understands his diagnosis and the warfarin?
- VIPTest1: 8/1/18 11:18 AM Yes, I agree that patient education is important.
- VIPTest3: 8/1/18 11:20 AM I think the next step should be to include the pharmacist as part of the clinical team prior to starting warfarin. The pharmacist can help the team and patient determine if warfarin is the appropriate treatment.
- VIPTest2: 8/1/18 11:21 AM Good idea! The pharmacist can help the team think about contraindications, side effects, dosing, lab monitoring etc. The pharmacist can also provide the patient with medication education.
- VIPTest3: 8/1/18 11:21 AM The nurse should also review the diagnosis, medications and other educational material with the patient.

Send Message

Notification Preferences:
- Send Email Notifications
  - Email: sachin@parigan.com
- Send Text Message Notifications
  - Phone Number: 706219862
  - Mobile Carrier: AT&T

Update Notification Preferences
Given the clinical case, your team must now decide if a root cause analysis is appropriate. Considering the information provided in the IHI modules, determine if a root cause analysis is indicated.
The following scenes are a flashback to the first hospital admission and emergency department visit/second admission. The scenes from the primary care provider’s office and patient’s pharmacy provides additional information the RCA team identifies during the investigation. These scenes, along with the medical record will help the team complete a thorough review of the event.

Hospital Admission #1 July 6th - July 9th
The following scenes are a flashback to the first hospital admission and emergency department visit/second admission. The scenes from the primary care provider’s office and patient’s pharmacy provides additional information the RCA team identifies during the investigation. These scenes, along with the medical record will help the team complete a thorough review of the event.

Emergency Department Visit and Hospital Admission #2 - July 24th
The following scenes are a flashback to the first hospital admission and emergency department visit/second admission. The scenes from the primary care provider’s office and patient’s pharmacy provides additional information the RCA team identifies during the investigation. These scenes, along with the medical record will help the team complete a thorough review of the event.

Primary Care Provider Office - the RCA team contacted the office for additional information after Mr. Campbell’s 2nd admission on July 24th.
The following scenes are a flashback to the first hospital admission and emergency department visit/second admission. The scenes from the primary care provider’s office and patient’s pharmacy provides additional information the RCA team identifies during the investigation. These scenes, along with the medical record will help the team complete a thorough review of the event.

Outpatient Pharmacy - the RCA team contacted the pharmacy for additional information after Mr. Campbell's 2nd admission on July 24th.

Medication Record:
- Carvedilol (Coreg) 25 mg daily
- Metformin (Glucomet) 1000 mg twice a day
- Aspirin 81 mg po daily
- Warfarin (Coumadin) 5 mg po daily
- Lisinopril (Zestril) 10 mg po daily

Campbell, Michael
The team will now use the information gathered about the event to create a flow chart of what actually happened in the order it occurred. When conducting a root cause analysis, flowcharts can be used to map the process and clarify the steps within the process. Remember the purpose of the flowchart is to describe what happened accurately and without blame.

Instructions: Using the up/down arrows or the drag/drop feature, rearrange the various events that occurred during Mr. Campbell's first admission into the actual order the events occurred. Team agreement is required to move forward. To submit a new flow chart click on the “Save & Submit” button. To move to the next step click on the “Next” button. You can review your currently submitted flow chart and your team's submitted flow charts by clicking on the links below.

Note: Team agreement is required before you can move to the next step. See what you and your team have submitted thus far by clicking on the links below. Use the chat function to communicate with your team.

--> My Currently Submitted What Happened Chart
--> vipset3 Submitted What Happened Chart
--> vipset3 Submitted What Happened Chart

What Happened

- Patient dies
- Nurse in orientation discharges patient and gives patient a packet of discharge paperwork without explanation.
- Night shift secretary’s message not conveyed to day shift secretary.
- Patient discharged home
- Patient started on Warfarin
- Discharging physician dictates discharge summary without forwarding a copy to the primary care provider.
- The pharmacist consults with the care team and patient regarding warfarin therapy.
- Patient attends the follow up appointment with the primary care provider 4 days after discharge.
- The primary nurse and new nurse on orientation review the discharge summary with the patient and answer any questions.
- Patient misses follow up appointment.
- On admission, the night secretary leaves a note to retain primary care records.
- Two weeks post discharge, patient presents to the emergency department with a complaint of a severe headache.
- Follow-up appointment scheduled with primary care provider for 4 days after discharge.

What Happened

- Admitted to hospital with new onset atrial fibrillation
- Patient stoss taking coreg
- Patient received multiple PRN doses of hydroclorothiazide.
- Patient's blood pressure elevated throughout hospitalization.
- The nurse assesses for the patient's understanding of the discharge instructions.
Utilizing the root causes identified through 5 Whys, complete the Fishbone diagram below to organize and display the possible cause of the event.

Instructions: Enter one cause per text box remembering to use short and succinct phrases. You may not need all the text boxes under a given heading. To save your work and to return to edit later enter the "Save" button. When you are ready to submit your fishbone enter the "Save and Submit" button.

Patient Characteristics
- Polypharmacy
- Misses PCP appointments

Task Factors
- No policy for obtaining PCP records
- No policy to notify PCP on admission
- Inconsistencies with discharge process

Individual Staff
- MD did not contact PCP on discharge
- PM secretary did not handoff to AM
- Discharge nurse was new

Team Factors
- Nurse preceptor did not check off tasks

Institutional Context
- Budget constraints

Work Environment
- High nurse/patient ratio

Organisational and Management Factors
- Lack of focus on interprofessional practice
Below, write a brief summary of the root causes analysis to include:
1. What happened
2. Root causes and contributing factors
3. Recommendations to prevent a recurrence of the adverse event.

Remember the summary will be shared with administrators and key stakeholders.

Enter your summary statements here.
VIP Learning Evaluation

• IP Collaborative Competency Scale
• Focus Groups
• Database Scoring
• Website Analysis and Measurement Inventory (WAMMI)
IP Collaborative Competency Scale

- Online Survey
- Administer pre and post intervention
- Questions focused on professional role, attitudes on teamwork and ability to achieve team goals.
- Significant improvement in attitudes on teamwork and professional role.
Focus Groups

• 7 Interprofessional focus groups
  • 2 cohorts
  • 5-10 students per focus group
  • Approximately 45 minute interview
  • Interview guide
Focus Groups

• Overall Impression of VIP Learning
  • Positive impression: approval for the concept
  • Enhanced IP collaboration and knowledge of professional roles
  • Need for continued refinement

• Comparison with campus class
  • Wide variety of student IP experiences
  • More interactive and convenient
  • Working with different schedules was difficult
Data Scoring

• Challenging within the elements of the program
  • Team decision-making
  • Correctly setting priorities
  • Repeating segments as needed

• Summary statement content analysis
  • Statement outlines summary of events and recommendations for improvement
<table>
<thead>
<tr>
<th>Theme</th>
<th>Examples of Recommendations</th>
</tr>
</thead>
</table>
| Improved Communication                    | • Improving between staff and patient  
• Improving between staff members  
• Improving between providers at hospital and primary care                                   |
| Adjusted Staffing                         | • Adjusting nurse staffing to allow adequate time with patients  
• Adjusting nurse to patient ratios                                                      |
| Transitions in Care                       | • Transmitting information between hospital and primary care  
• Improving hand-off between staff  
• Improving hand-off from hospital to primary care                                          |
| Protocol Development and Implementation   | • Clarifying roles and tasks  
• Prescribing courses of action                                                             |
WAMMI

Attractiveness Controllability Efficiency Helpfulness Learnability Global Usability

WAMMI Score

Cohort 1 Cohort 2

WAMMI Scale

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Lessons Learned

• This was an ambitious project!
• We were tested by branching case content, creating new educational technologies balancing time and funds

Success = Proof of Concept
Next Steps

- Technology Consultant
- Iterative changes
- Additional content
- Ongoing dissemination


Institute for Healthcare Improvement (2014). *Teamwork and Communication.* Retrieved from http://app.ihi.org/lms/coursedetailview.aspx?CourseGUID=3e37eb4a-4928-4d8b-976e-3a2a1a5f2c08&CatalogGUID=4cc435f0-d43b-4361-84b8-899b35082938&LessonGUID=00000000-0000-0000-0000-000000000000


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