Human Patient Simulation

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Human Simulation Module

- Drs. Ishac, Welch, Robinson & Cumpston
- 10 possible Human Patient Simulation modules
- View online overview (link on Resources page)
- Sign-up online (SRS) by Fri Aug. 5th, 10pm
- North Hospital, 2nd Floor, B218 (staging area)
- Held Mon & Tue Aug 8-9th, 12:30pm-5pm (30 min simulation session followed by 30 min debriefing)
- Team groups of 5-6 for simulation module
- **5 points towards your Pharmacology grade**
- Presented with 1 of 10 modules for simulation
- Reinforce concepts from class
Human Simulation Grade

5 Points Total

- 1 Point: Accuracy of vital sign measurements
- 1 Point: Performance of health professional team
- 1 Point: Correct diagnosis of condition
- 1 Point: Appropriate pharmacotherapy application
- 1 Point: Participation in debrief session

Human Patient Simulation

- Work in teams of 5-6
- Function as a health professional team
- 1 Lead Physician (patient history, present case, oversee team unity)
- 2-4 Secondary Physicians (perform PE exam ie. BP, HR, RR, O₂, pupil response etc)
- 1 Pharmacist, laboratory specialist
- 1 Reporter (record history, PE exam values, laboratory values, treatments, present case)
Human Patient Module Cycle

- 0-5 min: Familiarize with manikin equipment, practice and evaluated on vital sign measurements.
- 5-25 min: Participation in simulation module (one of 10 modules)
- 25-30 min: Short debrief on performance as a health professional team
- 30-60 min: Formal debrief of two groups from different modules. Lead physician and reporter will present group case scenario and together with their team members answer questions and defend their decisions during the simulation module.

Human Patient Simulation - Manikin
Potential Human Simulation Roles

1. Lead physician
2. Secondary physicians
3. Pharmacist
4. Nurse
5. Physical assessor
6. Laboratory specialist
7. Reporter
8. Patient companion
9. Faculty facilitator

Pharmacotherapy – Drug Toolbox

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Drug Name</th>
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<tbody>
<tr>
<td>Bethanechol</td>
<td>neostigmine</td>
<td>physostigmine</td>
</tr>
<tr>
<td>Atropine</td>
<td>benztrapine</td>
<td>pralidoxime (2-PAM)</td>
</tr>
<tr>
<td>Phentolamine</td>
<td>propranolol</td>
<td>metoprolol</td>
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<tr>
<td>Epinephrine</td>
<td>norepinephrine</td>
<td>clonidin</td>
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<tr>
<td>Diphenhydramine</td>
<td>dopamine</td>
<td>haloperidol</td>
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<tr>
<td>Labetalol</td>
<td>fenoldopam</td>
<td>phenoxybenzamine</td>
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<tr>
<td>Succinylcholine</td>
<td>rocuronium</td>
<td>acamprosate</td>
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<tr>
<td>Bupropion</td>
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<td>diazepam</td>
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<tr>
<td>Disulfiram</td>
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<tr>
<td>Hydroxyzine</td>
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<tr>
<td>Methadone</td>
<td>morphine</td>
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<tr>
<td>N-acetyl cysteine</td>
<td>naloxone</td>
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<tr>
<td>Naltrexone</td>
<td>thiamine</td>
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<tr>
<td>Varenclline</td>
<td>normal saline</td>
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</tbody>
</table>
**Vital Signs (VS) – LCD Monitor**

Wave form
- ECG
- Pleth
- ABP
- PAP
- CO₂
- NBP

Values
- HR
- SpO₂
- Temp
- ABP
- PAP
- RR
- CO₂

**LCD Monitor Abbreviations**

- **PAP**: Pulmonary artery pressure
- **ABP**: Ambulatory Blood Pressure
- **NBP**: Non invasive blood pressure
- **Pleth/SpO₂**: Pulse oximetry (plethysmograph), O₂ saturation %
- **RR**: Respiratory rate
- **HR**: Heart rate
- **ECG**: Electrocardiograph
- **CO₂**: End-tidal CO₂ measurement (capnography)
- **Temp**: Temperature (F or C)
Laboratory tests and scans

VS – Heart rate (HR), detection sites