

## Use Case 1 – Synchronous Multi-Patient Event

The first JETS use case is to conduct a synchronous, multi-site and multi-patient training event. Each patient is treated at several roles of care at different physical sites, and all three patients are operating simultaneously on the federation. Using specific patient IDs and facility IDs, all three patient micro systems can exist on the same federation without mixing up the data. Each after action review (AAR) system is configured to watch a single patient at a specific location, ensuring the system only receives the relevant bookmarks. The TrACER assessment checklists are also assigned to specific users at specific sites, allowing multiple checklists to be filled in by different instructors. The Learning Record Store (LRS) and TrACER are cloud-based, providing a single point of access to all training sites.

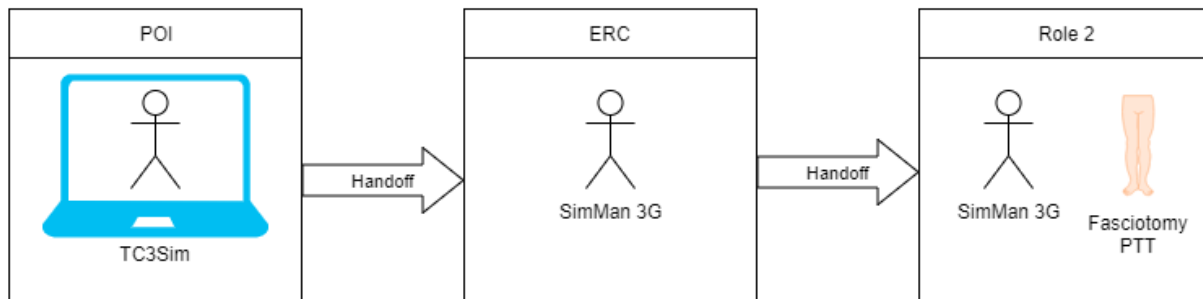


Figure 1. Trauma Patient summary.

Patient 1 is a trauma patient that starts at the point of injury (POI), moves to en route care (ERC), and ends at a Role 2 (R2) facility. A single physiology model continues to model the patient through the entire training event; treatments conducted at the POI site affect how the patient presents to the ERC and R2 sites. The first handoff is enabled by the federation since the POI and ERC events are conducted at different sites.

Using the MMS Control software, the instructor saves the critical information from the POI event in the LRS, where it can later be downloaded by the ERC instructor for continued operation. The handoff process saves and submits both the patient state and the DD1380 form. The specific process is shown in the two diagrams below.

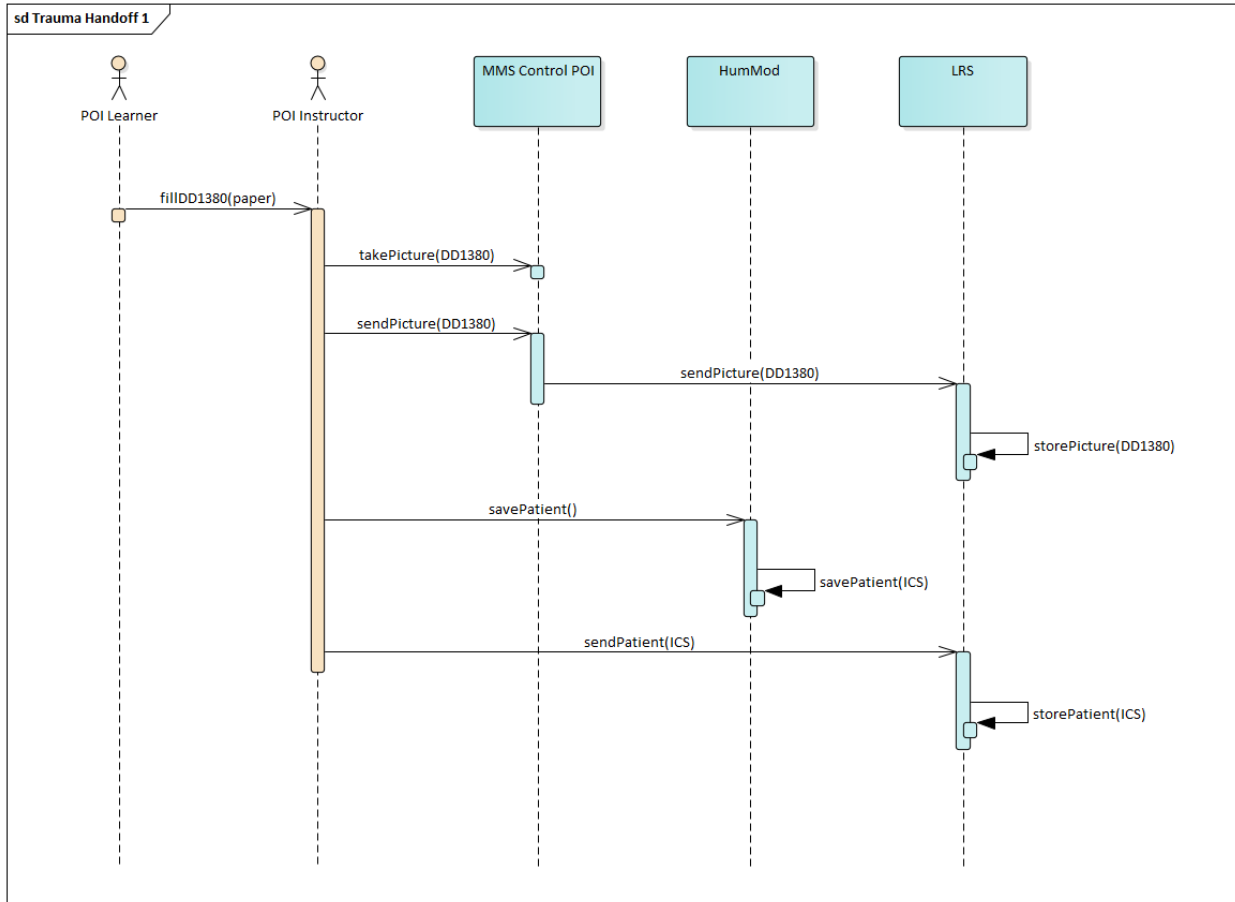


Figure 2. Process to send the handoff from the POI event to the LRS.

The POI instructor uses the MMS Control interface to perform the two necessary actions for the handoff process: first, to take a picture of the DD1380, and second, to save the patient state within HumMod. When ready, both of these files are sent to the LRS where they are stored for later retrieval by the ERC event.

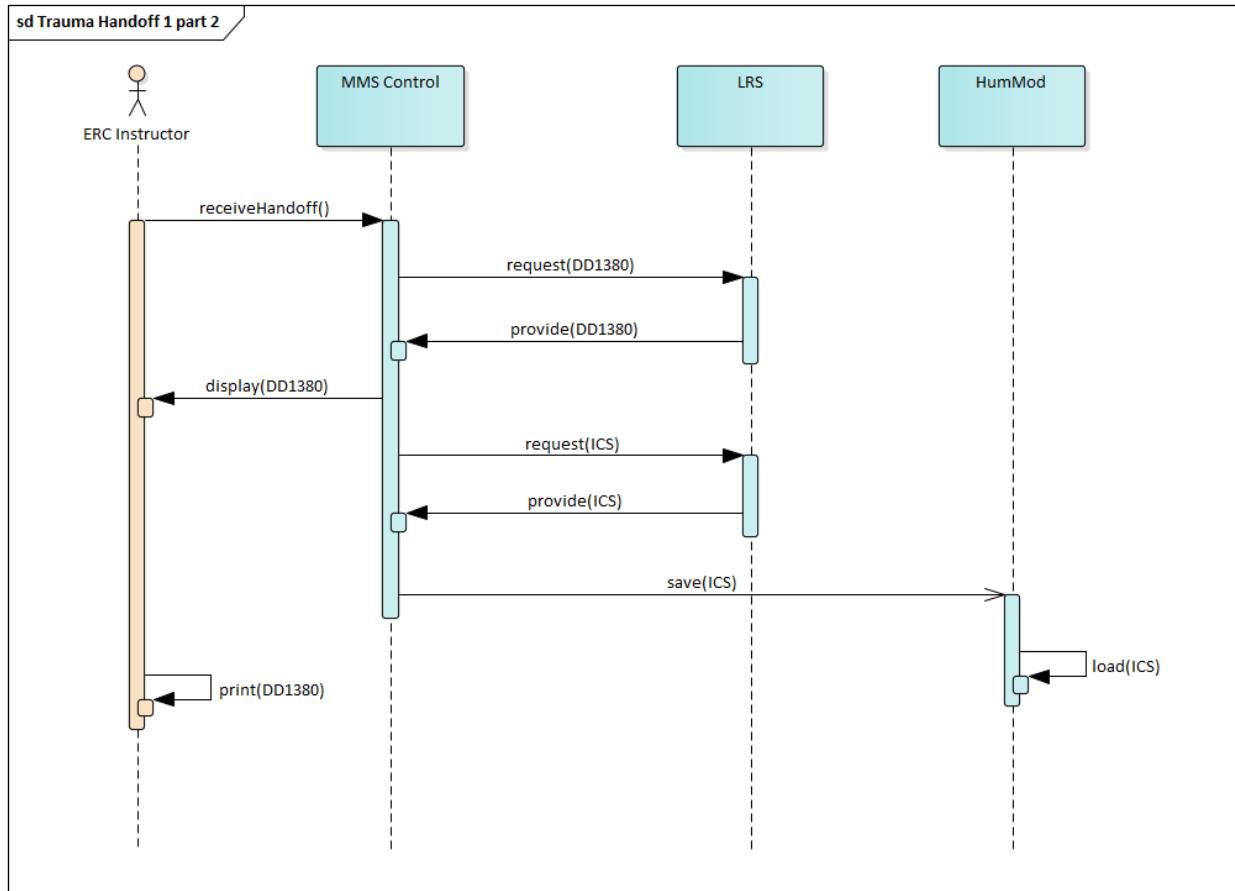


Figure 3. Process to receive the handoff from the LRS at the ERC event.

When ready, the ERC instructor downloads the previously submitted DD1380 picture and HumMod patient file from the LRS. The instructor prints the DD1380 to provide it to the ERC learner and loads the patient file into the local HumMod model. This allows the ERC event to begin exactly where the POI event ended, with respect to the patient state.

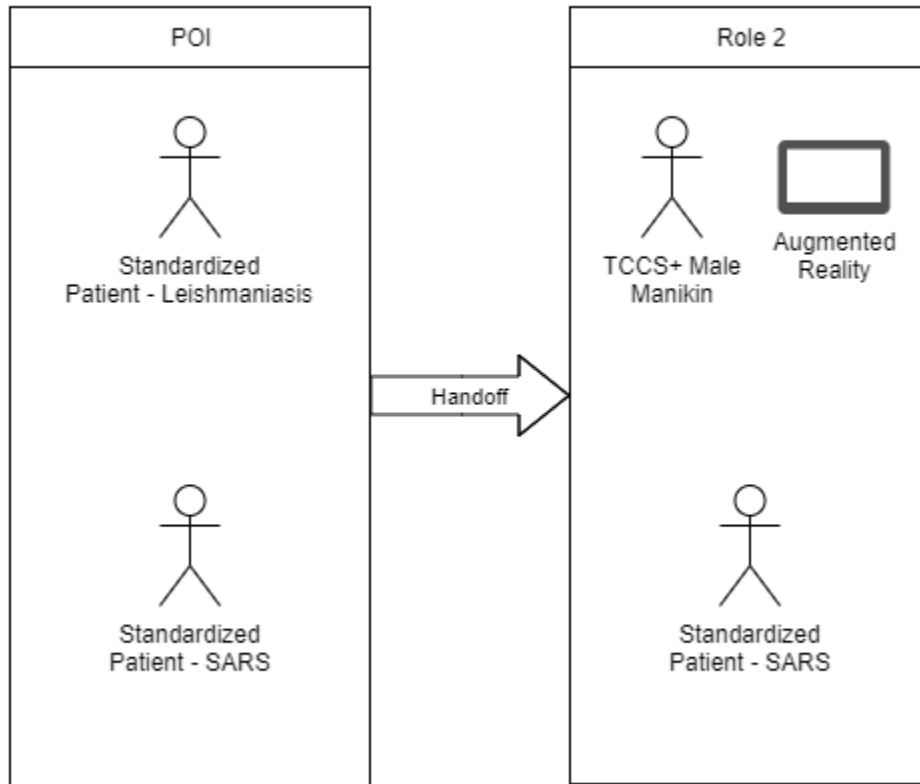


Figure 4. DNBI Patient summary.

Patients 2 and 3 are disease non-battle injury (DNBI) patients that present to a Role 1 sick call facility and are later transferred to a Role 2 treatment facility. The leishmaniasis patient is played by a standardized patient at a POI facility. The actor has moulage to show a rash on the chest. A simulated patient monitor displays basic vital signs, and a local AAR station captures audio, video, and bookmark data. The SARS patient is also played by a standardized patient at the same facility. The learner can fill out a DD1380 for each patient and send them to a R2 facility. At the R2 facility, the next learner uses an augmented reality system to view the leishmaniasis patient represented by the TCCS+ Male manikin. The SARS patient remains a standardized patient. The goal of the SARS patient is to see if the learner can recognize a contagious disease before it spreads.