

Kliničke vještine II

Modul B: How to use simulator

(informatička učionica)



Voditelj modula:

Prof. dr. sc. Vladimir J. Šimuović, dr. med., specijalist opće kirurgije i neurokirurgije

Klinički instruktori:

Doc. dr. sc. Mladen Rakić
dr. med. Mario Malički
Rahela Orlandini, vms
Ana Šarić, med. stud.

How to use simulator

The Main Screen

The main way of controlling the simulation is to interact with the picture. Click directly on the objects on the screen to open a menu from which you can choose the action you wish to perform. To perform an action, for example examine the patient's head, click on the head, and only the appropriate actions will be displayed. In the same way you can click on the rescuers, the defibrillator, etc. to see the actions concerning these items.

The Bottom Panel

Another way to use the simulator is by using the panel at the bottom of the screen. This panel is grouped into eight sections:

The first contains the response actions, where you can check consciousness of the patient and ask the patient questions.

The box below contains the drugs actions. Here you can choose and administer drugs and fluids.

The third group contains actions concerning the airway of the patient.

The fourth group contains actions to ventilate and administer oxygen to control the breathing of the patient.

Actions concerning the circulation of the patient are placed in the fifth group.

The sixth group contains general actions for the examination of the patient.

The seventh group contains the actions concerning exposure of the patient - e.g. temperature control.

Finally the last group, miscellaneous, provides access to different investigations and procedures.

The Pop-up Windows

When you click an item such as the defibrillator in the main screen or in the button panel, a small window pops up, in order to show you features of the item you've clicked. For example, a window, showing the current heart rate will pop up when you attach the 3-lead ECG electrodes. By clicking the ECG window you can access other functions such as Use Pacemaker if, for example, you want to perform transcutaneous pacing.

The Other Buttons

The **Time Buttons** are used to control the simulation time - including pause, fast-forward and stop. If you press stop, you will proceed directly to the debriefing. From here you can choose to resume the scenario by clicking Resume Scenario. The time button panel is placed in the top right corner of the main screen.

The Medical Record icon - placed in the bottom left corner of the main screen - enables you to view data concerning the patient.

In the bottom right corner of the main screen you will find the **Transfer / Ambulance / MEDEVAC *** icon.

Choosing an action by clicking on one of the rescuers in the picture will cause that rescuer to perform the action immediately. If he or she is occupied with something else, they will abort that action if both the selected actions can't be performed at the same time. Alternatively, choosing the same action from the panel lets the program decide which available person should do the action.

The two rescuers can perform the same actions. Any action not available by clicking on the rescuers can be found by clicking directly on the patient or by using the bottom panel.

Configuration

The configuration screen is designed to enable instructors to control most aspects of the program, and the conditions under which simulations can be run. The configuration screen lets you choose the availability of each drug, patient, piece of equipment, etc., collectively called features.

To ease your navigation in the configuration screen, features are grouped by function. Each function group is represented as a folder tab in the top of the configuration screen. When you select a tab, the window to the left will display a picture that matches that tab, and the main window in the middle will present a number of features arranged into a tree.

Features

If you click on a feature, you will get a description of that feature in the right-hand side window. Here you can enable or disable some features - and change the value of others - to customise the simulator exactly to your needs.

Locations

Most features can be configured on a per-location basis, which means that you can instruct the simulator to enable a feature at one location, and disable it at another location. In the configuration screen, you control which location you are configuring by changing the location in the drop-down menu labeled Choose which setting to configure above the tree of features. When you are configuring a specific location, a location-specific picture will be shown in the left-hand side window, and some features will fade out to show you that they cannot be configured per location. If you change the location to All settings, the configuration screen will give you a summary of the settings for all locations. In summary mode, a check box with a check mark on a grey background means that the feature is enabled at some locations and disabled at others. The configuration state of the various locations is summarized in parentheses after the feature. Similarly, a grey entry means that the feature is enabled at some locations and disabled at others. When in summary mode, any configuration you perform will be applied to all locations (if possible).

Storing configurations

You have access to profiles, which allow you to save the settings of the configuration.

Time

By using the time panel at the top right corner, you can control the time in the scenario. The controls work in much the same way as those on an ordinary CD player or VCR with four buttons: Start/Restart the time, Fast forward, Pause and Stop . The clock shows you, in real-time, how much time has elapsed since you arrived at the scene.

Start/Restart the time is the standard setting. You use this button to resume play after pausing or to cancel fast forward.

Fast-forward (two triangles pointing to the right) allow you to jump one minute forward in time. During the jump in simulation-time, the casualty behaves as if in normal time. If the condition of the casualty changes during the jump, the time will automatically revert to normal time. You can also interrupt fast forward manually, by pressing the Start/Restart the time button.

Pause: If you have to leave the computer temporarily, you can pause the time by clicking the Pause button (the two vertical lines). When you do this, the game is brought to a complete halt, and you cannot perform any actions (also indicated by the greyed-out menus). To start the time again, click Start/Restart the time , and the scenario will resume exactly as when you left it.

Stop: To stop the session and return to the debriefing screen, click Stop (the square). If you click Stop by accident, you can still resume by clicking Resume scenario . However, to get the full benefit of the simulation, it is recommended that you continue until you decide either to abort the treatment, or to transfer the casualty.

Transfer

The Transfer icon is placed in the bottom right corner of the main screen. By clicking the icon, you can choose between several options for how you wish to transfer the patient to further care:

Stop further treatment

If you decide that there is nothing more that can be done for the patient, you can end the simulation by clicking on this button.

Transfer the patient to ICU

If you feel that your patient is stabilised, you can choose to transfer to ICU/monitored bed for further care.

Transfer to medical ward

This option will end the scenario. Select this option if you find the patient has received sufficient treatment for now, but should be kept at the medical ward for observation or further treatment in the near future.

Transfer patient to transvenous pacing

Transvenous pacing is an invasive procedure stimulating the heart to contract, thereby supporting cardiac output. In contrast to transcutaneous pacing, which can be started quickly and conveniently at the bedside, transvenous pacing requires involvement of the invasive cardiology team.

Transfer patient to CT

A CT scan of the cerebrum is primarily used to identify intracerebral or subarachnoid haemorrhage in suspected stroke patients. A noncontrast CT scan is the single most important test when ruling out haemorrhagic stroke.

Transfer patient to PCA

Patients with acute chest pain should be evaluated as potential candidates for percutaneous coronary angioplasty (PCA) - either angioplasty or intracoronary stenting. PCA is superior to fibrinolytic therapy when treating ACS or cardiogenic shock in patients who are less than 75 years of age.

Discharge

This option will end the scenario and send the patient home. Select this option if you find the patient has received sufficient treatment and is ready to be discharged.

Medical record

The Medical Record icon gives access to patient data, investigation results such as venous blood samples, ABG-sample, X-ray results, Glasgow Coma Scale etc. It also gives you a brief outline of what has occurred up to the point at which the scenario starts.