

Description of the Web-SP system

The Web-SP system

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1. Introduction

The main outcomes for the work with profiles is to (1) enable the highest level of compliance between players within the same family (run-time validation level) and provide the basis for a certification process of VP systems/players by the Medbiq consortium. The virtual patients (VPs) created and delivered using Web-SP can have different formats but I chose to describe the most common format represented in the majority of the VPs (medicine, dentistry, nursing) that are currently available for sharing either directly using the export tool or downloaded from repositories such as the eViP repository or the MedEdPortal.

I believe that creating families around VP types/formats is more appropriate than building profiles around VP systems since the observed trend is that most systems evolve toward supporting several VP types/formats. Therefore certifying a system wouldn't make sense.

2. Pedagogical approach

The "clinical reasoning" literature reports a positive correlation between the processes of data inquiry, data interpretation and integration, and diagnosis elaboration which raises the issue of interdependence between these skills.

Three aspects are critical to enable a VP created in another VP system to run on Web-SP:

- The patients' chief complaint can be used as the reasoning stimulus
- All the remaining information can be used in a non-cued format in order to let the learners decide on what additional information is needed to make a diagnosis and propose a patient management plan.
- The data exported is well tagged (medical history question, physical exam, labs, etc..)

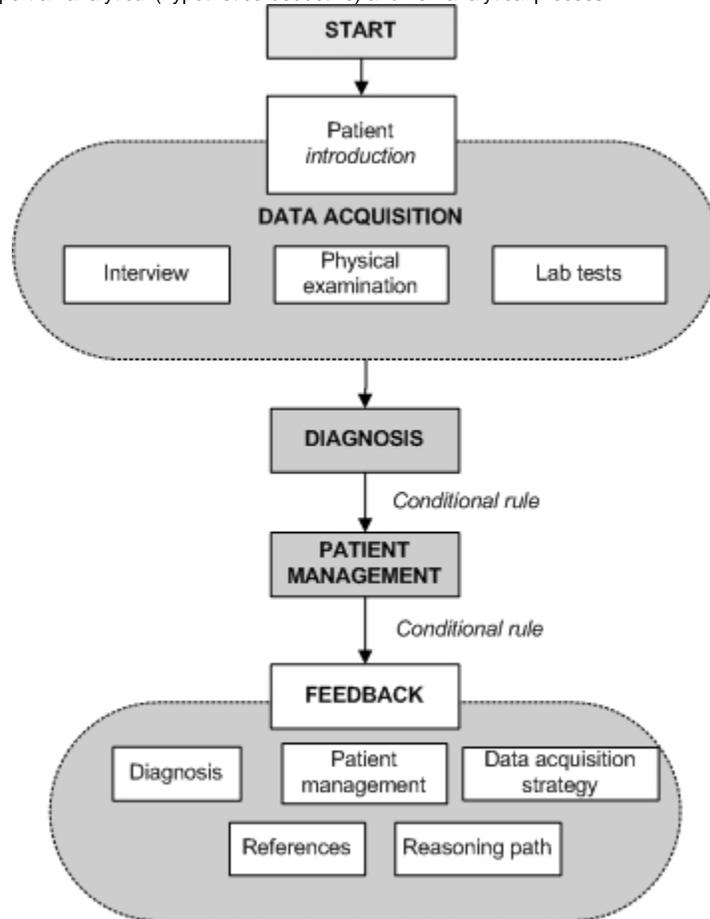
Why?

Because we want to be able to reflect the actual problem-solving process during a real encounter - with other words - reflect the actual clinical process where the clinician has to determine the type of additional information needed from the initial complaint to make the appropriate diagnosis. We want the learners to integrate their data acquisition skills, acquired previously and separately, into the reasoning process.

3. Navigation

We define the navigation in this type of VPs as being semi-linear. The navigation between major sections of the VP is linear (forward and backward navigation is supported and regulated using rules) and global in the data acquisition and feedback sections.

The navigation was designed to support an analytical (hypothetico-deductive) and non-analytical process.



4. Data representation

The data is highly structured using fully the defined elements in the VP XML specification.

Below are screen-shots of different type of screens.



Patient introduction (Chief complaint) \

Patient: Tom P Miller

- Microbiology
- Hematology
- Immunology
- Microbiology
- Pathology
- Pharmacology
- Medicine
- Show all

- CK (Creat) (Corticosteroids)
- CK (Creat) (Corticosteroids)
- Neck/Thyroid (Cystic)
- CK-MB (Troponin)

Lab Name	Result	Unit	Reference Range
CK (Creat)	20	U/L	25-200 U/L
CK (Creat)	5	ng/mL	< 5

Required Info

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