MedEdPORTAL *Publications*

Educational Summary Report Template: Simulation Cases

*The Educational Summary Report (ESR) is a required part of all submissions to MedEdPORTAL* Publications*. The ESR provides a summary overview of the entire submission and should serve as a guide for understanding the purpose and scope of the resource. Authors should be aware that a MedEdPORTAL publication consists of the ESR and all component resources contained within the submission.*

*This template is designed to help you develop your ESR in preparation for a successful simulation case submission. The information below is specific to simulation submissions only; for other resource types, follow the standard ESR template found in our* [*Submission Instructions*](https://www.mededportal.org/submit/instructions/#faq-447480)*. Staff will format templates of accepted submissions upon publication. Note that all information contained in an accepted and published ESR will be viewable by the general public. Special clearance materials (i.e., those that should remain restricted from students) must thus be part of the appendices.*

*Directions: Provide complete and succinct responses for each section, minimizing the use of lists and bullets. Ensure that your responses are publication-ready with accurate spelling, grammar, and word choice. Submit your ESR as a Word document using the same font and formatting found in this template (10 point Calibri font, bolded headings, 1 inch margins). PDFs will not be accepted. For guidelines on headings, tables and figures review the* [*ESR Style Guide*](https://www.mededportal.org/download/456446/data/styleguide.pdf)*.*

**Title (limit to 18 words)**

Use a descriptive title that provides prospective users with a good understanding of your resource materials, the intended learner population, and the resource’s implementation. For simulation cases, consider a title such as: “Acute Asthma Exacerbation: A Pediatric Simulation Case for Medical Students”

Author Byline

List each author (First name Last name, terminal degree) separated by a comma in order of contribution.

**Abstract (limit to 250 words)**

Provide a one paragraph abstract of the submission, including an introduction, background/rationale for the work, methods used, and brief summary of the results. To conclude, elaborate in two to three sentences how the results of implementation advance the field. Do not use references in your abstract.

Use the abstract to briefly describe the simulation case, including the patient’s age, chief complaint or presenting problem, final diagnosis, and a *brief* description of major events that occur. Succinctly describe special equipment needed (*e.g.,* simulation mannequin or special procedure supplies) and the major critical actions and learning objectives as well as assessment(s) of learners and the case itself. Summarize learner outcome measurements.

**Educational Objectives**

All objectives should be numbered and SMART (Specific, Measurable, Action-oriented, Relevant/Realistic, Timely/Time-bound). Remember to use appropriate levels of Bloom’s taxonomy. Objectives should be learner/learning-focused and reflect clearly the targeted knowledge, skills/performance, and/or attitudes/values. Note that this is not the place to include critical actions or a checklist/evaluation tool (see Appendices).

Most submissions have three to five learning objectives. The suggested format is:

By the end of this session, learners will be able to:

1.

2.

3.

**Introduction**

Describe the background of the problem or opportunity addressed by the resource—why and how the resource was created. For what purpose can one use this resource? Include the target audience(s), noting any prerequisite knowledge, skills, and/or experiences needed, and the ideal context for implementation. Briefly describe the existing scholarship relevant to this educational resource. Connect the development of this resource with prior work (i.e., work developed by yourself and by others), including theories, conceptual frameworks, and/or models. Include observations, experiences, and/or evidence-based best practices from outcome studies.

Be sure to cite relevant references, including related or similar resources in MedEdPORTAL *Publications*. Explain how your experiences informed development of this resource.

Provide the educational rationale for designing this simulation case. Use references and curricular design elements such as needs assessments and identification of gaps in knowledge as appropriate.

**Methods**

Describe the educational approach used and the rationale for selecting that approach. Convince the reader you have selected an educational approach that will successfully address the problem or opportunity described in the introduction.

Describe in detail each of the files in your submission, including all instruments, assessment tools, templates, protocols, videos, or faculty development resources you have provided. Files should be referenced by their appendix letter: “Directly following the simulation, the students complete a 30-minute debrief (Appendix D).” Every Appendix should be referenced in this section. Note any other resources, preparation guidance, and necessary materials (e.g., audiovisual equipment, simulators, room setup, notepads, flip charts, etc.) and other key steps or instructions that would facilitate success of users of your resource (e.g., promotional materials).

Be clear and specific enough that a user could implement the material(s)/activities with the same or similar quality and outcomes without having to contact you for additional explanation. Include information that answers these questions: Who? What? When? Where? Why? How?

Simulation cases should have the Methods section divided into the following subheadings:

Equipment/Environment

List all equipment necessary to run the case, including mannequins, procedural equipment, medication vials, props, and mannequin setup such as moulage and initial lines/appearance. Please be detailed in descriptions of any moulage and include pictures if these are available. This should correlate with the visual stimuli (e.g., patient de-identified x-ray images, CT scans, EKGs, and laboratory values) within Appendix B.

Personnel

List all personnel needed to successfully use this case and the roles that they should play in the scenario. Include simulation personnel as well as actors or other participants.

Assessment

Provide a description of how learners should be assessed during the implementation of your simulation case. Include information about how you created your critical action checklists (which should be included as Appendix C). Discuss any checklists, assessment tools, or methods for assessing case effectiveness that you will include as additional appendices.

Debriefing

Describe your recommended method(s) for learning debriefing after implementing your simulation case. Include suggested questions for learners, prompts, or other elements that will promote successful discussion of the case learning objectives. Provide actual materials to be used in debriefing in Appendix D (see below). This file should contain detailed debriefing materials and a description of how to use them. You may also include additional appendices with materials such as a PowerPoint file or other presentation of the clinical information and essential learning topics from the case, a detailed learner handout, and/or appropriate preparation materials for faculty who are not experts in the clinical topics presented in your resource.

**Results**

Describe the results of implementation. How many and what type of learners experienced your materials? How many faculty members have used your resource, and what is their level of training or background in content areas relevant to the materials of the resource? Qualitative and/or quantitative data may be provided. This may include learner satisfaction data, learner pre- and posttest data, an analysis of a post hoc focus group, etc. The results should provide some level of evidence that the resource or experience was successful.

Use this section to include specific information about your own use of your simulation case, and any use it has had from others. Include the number of times the case has been used, what learner populations have used the case, and how many different faculty have used the materials. Include information about the background and expertise of faculty implementing the case, any preparation that was required for facilitators, and any challenges identified during pilot testing. Provide the results of any pre- or post-testing of knowledge, summative or formative assessments completed, skills demonstration checklist performance, or other evidence of successful implementation. Include a summary of any free-text comments or feedback obtained regarding the case material.

**Discussion**

Reflect on the entire process of design, development, evaluation, and dissemination. Reflect on the extent to which the results successfully addressed the problem or opportunity described in the introduction. Convince the reader that this resource will likely be useful to others.

Describe the challenges encountered, insights gained, limitations, future opportunities, and planned revisions.

Use this section to discuss in detail the lessons learned while creating and piloting your simulation case materials. Summarize changes made to the case or presentations based on initial piloting to improve the flow of the case. How have you responded to learner feedback or what plans for future revisions do you have based on the use of the materials to date?

**References**

List all references in AMA style, as set out in the *AMA Manual of Style* (10th edition, section 1, chapter 3). The reference list should be arranged in the order that references are first cited in the ESR and appendices.

In the text, cite references via superscript arabic numerals (1, 2, 3, etc.) based on the corresponding number on the list. For instance, the 13th reference on the list should be cited as 13 in text. When superscript numerals appear next to punctuation marks, they should be placed *after* periods and commas but *before* colons and semicolons.

A helpful link on the basics of AMA style for references is <http://www.biomedicaleditor.com/ama-style.html>.

**Appendices**

In a published resource, all peer-reviewed files will be linked to the ESR as appendices. Each appendix should be its own file, separate from the ESR and labeled by letter, beginning with Appendix A. Use file names as appendix titles.

For example:

A. Simulation Case Template.docx

B. Simulation Images.docx

C. Critical Actions.docx

D. Debriefing Materials.docx

All simulation cases should include the MedEdPORTAL Simulation Case Template (Appendix A) as well as the example appendices above. The Methods section includes a description of the suggested contents of Appendices B-D, but letter designations may vary based on your submission. Additional appendix files may include items such as a detailed flow diagram of the case, additional training materials, standardized patient information, or other case material.

Author Note

Describe the primary role, department (if applicable) and institution of each author in one sentence. For example:

Dr. Full Name is an associate professor in the Department of Medicine at The University of Learning Medicine.

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| **Appendix A: MedEdPORTAL Simulation Case Template**  **SIMULATION CASE TITLE:**  **AUTHORS:** | |
| **PATIENT NAME:**  **PATIENT AGE:**  **CHIEF COMPLAINT:** | |
|  | |
| **Brief narrative description of case**  *Include the presenting patient chief complaint and overall learner goals for this case* |  |
| **Primary Learning Objectives**  *What should the learners gain in terms of knowledge and skill from this case? Use action verbs and utilize Bloom’s Taxonomy as a conceptual guide* |  |
| **Critical Actions**  *List which steps the participants should take to successfully manage the simulated patient. These should be listed as concrete actions that are distinct from the overall learning objectives of the case.* |  |
| **Learner Preparation**  *What information should the learners be given prior to initiation of the case?* |  |

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| --- | --- | --- | --- |
| Initial Presentation | | | |
| **Initial vital signs** |  | | |
| **Overall Appearance**  *What do learners see when they first enter the room?* |  | | |
| **Actors and roles in the room at case start**  *Who is present at the beginning and what is their role? Who may play them?* |  | | |
| **HPI**  *Please specify what info here and below must be asked vs what is volunteered by patient or other participants* |  | | |
| **Past Medical/Surgical History** | **Medications** | **Allergies** | **Family History** |
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| **Physical Examination** | | | |
| **General** |  | | |
| **HEENT** |  | | |
| **Neck** |  | | |
| **Lungs** |  | | |
| **Cardiovascular** |  | | |
| **Abdomen** |  | | |
| **Neurological** |  | | |
| **Skin** |  | | |
| **GU** |  | | |
| **Psychiatric** |  | | |

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| Instructor Notes - Changes and CASE Branch Points  *This section should be a list with detailed description of each step than may happen during the case. If medications are given, what is the response? Do changes occur at certain time points? Should the nurse or other participant prompt the learners at given points? Should new actors or participants enter, and when? Are there specific things the patient will say or do at given times? There are a few examples given, but it is expected that most cases will have many more changes and potential branch points..* | | |
| **Intervention / Time point** | **Change in Case** | **Additional Information** |
| *5 minutes into the case* | *BP begins decreasing if no IV fluids have been given for hypotension* | *RN alerts the provider: “Doctor, the blood pressure is 90/45”* |
| *Patient is log rolled for the participant to examine the back* |  | *Patient states: “Ouch that really hurts my leg!”* |
| *Epinephrine is given by intramuscular injection for suspected anaphylaxis* | *Patient heart rate increases by 20 beats per minute over next 1 minute. Respiratory rate decrease to 16, wheezing improves.* |  |
| *Participant requests finger stick blood glucose.* | *Glucose level is 45.* | *Glucose level will improve if patient is given IV D50 or is permitted to eat and/or drink.* |
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**Ideal Scenario Flow**

*Provide a detailed narrative description of the way this case should flow if participants perform in the ideal fashion.*

*For example:*

*The learners enter the room to find a patient in respiratory distress. They immediately place the patient on bedside monitors and recognize that the patient is hypoxic and hypotensive. Supplemental oxygen is provided and an IV fluid bolus is ordered. The patient’s respiratory distress improves but does not resolve, and hypotension is refractory to IV fluids. After completing a physical examination and obtaining an appropriate history, the providers note that the patient’s respiratory status has continued to worsen and ultimately endotracheal intubation is required. Successful intubation permits further evaluation of the patient with diagnostic studies. Chest x-ray is normal, laboratory studies (if obtained) demonstrate an elevated D-dimer and a mildly elevated troponin level, EKG is sinus tachycardia with an S1-Q3-T3, and a CT scan of the chest reveals the diagnosis of a massive saddle pulmonary embolism. The patient remains hypotensive and the pulse oxygenation is 92% on 100% oxygen via ventilator. The providers administer thrombolytics and arrange for patient admission to the medical ICU.*

**Anticipated Management Mistakes**

*Provide a list of management errors or difficulties that are commonly encountered when using this simulation case.*

*For example:*

1. *Difficulty with bedside monitors: We found when using this case with medical students that many of our learners did not know how to properly connect EKG leads to the bedside monitor. We modified our sessions to include an introduction to simulation cases that includes a tutorial for connecting patients to bedside monitoring.*
2. *Failure to recognize the need for intubation: Some of our learners did not immediately recognize that the patient required airway management, leading to delay in diagnosis. We found it helpful to allow the pulse oxygenation to continue to drop despite supplemental oxygen to prompt the need for intubation.*
3. *Uncertainty about indications for thrombolysis: Many of our learners were unfamiliar with the indications for the use of thrombolytics in acute pulmonary embolism. We created specific debriefing materials to cover this information.*