Simulation Design Template

Damon McAdam – Simulation #2

|  |  |
| --- | --- |
| **Date:**  **Discipline:** Nursing  **Expected Simulation Run Time:** 20 minutes  **Location:** Inpatient Pediatric Unit  **Today’s Date:** One day after admission to ED | **File Name:**  **Student Level:** Pediatrics course  **Guided Reflection Time:** Twice the amount of time that the simulation runs.  **Location for Reflection:** |

Brief Description of Patient

**Name:** Damon McAdam **Pronouns:** he/him

**Date of Birth:** MM-DD-YYYY (reflect age 30 months) **Age:** 2 ½ years

**Sex Assigned at Birth**: Male

**Weight**: 30.4 lbs (13.8kg) **Height**: 36”

**Racial Group**: (Faculty can select) **Language:**  English **Religion**: (Faculty can select)

**Support Person:** Parents: Amber & Marshall McAdam **Support Phone:** 907-998-3456

**Allergies:** No known allergies **Immunizations:** Up to date through age 2

**Attending Provider/Team:** Dr. Patel/Pediatric Team

**Past Medical History:** Normal spontaneous vaginal delivery at 40weeks. Has had 2 ear infections, treated with amoxicillin, last infection about 6 months ago. No major illnesses. No hospitalizations. Mother reports he has had well child visits since birth and is up to date with immunizations.

**History of Present Illness:** Patient was admitted to pediatric unit yesterday after evaluation in the Emergency Department. He began vomiting 4 days ago, after spending the day at his day care center. Progressed to vomiting 6-8 times/day the past 3 days. Diarrhea began 3 days ago, progressed to 10 episodes of runny green stools yesterday. Initially would eat crackers and drink apple juice, but then refused any food or fluids. Mom has tried over–the-counter oral rehydration solutions with no success. Damon had not voided for over 12 hours at the time of admission, and he had become lethargic. Mom states he was 31# (14kg) at the pediatrician’s office 2 months ago, he was 13.6kg yesterday, and is up 0.2kg to 13.8kg this morning. He has been on IV fluids since yesterday.

**Social History:** Patient lives with parents and 2 siblings, none of whom are ill at this time. Both parents are employed full-time. Patient is in day care full-time. Mom expresses some concerns about patient’s speech and development, stating he does not have good language skills for his age and he can be “hard to deal with,” with behavior like screaming when touched.

**Primary Medical Diagnosis:** Gastroenteritis with dehydration. ED exam revealed bruising on torso inconsistent with normal toddler injuries and social services department has been notified.

**Surgeries/Procedures & Dates:** None

Psychomotor Skills Required of Participants Prior to Simulation

* Vital signs and physical assessment of toddler
* IV fluid administration with use of IV pump

Cognitive Activities Required of Participants Prior to Simulation

Use textbook and other faculty-directed resources to review:

* Developmental milestones for 2- to 3-year-olds
* Signs and symptoms of dehydration
* IV fluid management in children
* Role of social services department in inpatient care
* Early signs of children on autism spectrum

Simulation Learning Objectives

General Objectives (Note: The objectives listed below are general in nature and once learners have been exposed to the content, they are expected to maintain competency in these areas. Not every simulation will include all of the objectives listed.)

1. Practice standard precautions.
2. Employ strategies to reduce risk of harm to the patient.
3. Conduct assessments appropriate for care of patient in an organized and systematic manner.
4. Perform priority nursing actions based on assessment and clinical data*.*
5. Reassess/monitor patient status following nursing interventions.
6. Communicate with patient and family in a manner that illustrates caring, reflects cultural awareness, and addresses psychosocial needs.
7. Communicate appropriately with other health care team members in a timely, organized, patient-specific manner.
8. Make clinical judgments and decisions that are evidence-based.
9. Practice within nursing scope of practice.
10. Demonstrate knowledge of legal and ethical obligations.

Simulation Scenario Objectives

1. Assess vital signs.
2. Complete a focused assessment for hydration status.
3. Evaluate IV site and IV fluids.
4. Use therapeutic communication techniques to develop rapport with parent.

Faculty Reference

(Note to faculty: If information on autism and child abuse is not available in student textbooks and other resources, you may wish to assign students to read material on some of the websites listed below.)

Center for Disease Control and Prevention, Autism Spectrum Disorder

<https://www.cdc.gov/ncbddd/autism/index.html>

Center for Disease Control and Prevention, Child Maltreatment

<https://www.cdc.gov/violenceprevention/childmaltreatment/>

Autism Speaks Website

<https://www.autismspeaks.org/>

Pediatric Dehydration

<http://emedicine.medscape.com/article/801012-overview>

Managing Acute Gastroenteritis among Children

<https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5216a1.htm>

[Lo Vecchio, A](https://www.ncbi.nlm.nih.gov/pubmed/?term=Lo%20Vecchio%20A%5BAuthor%5D&cauthor=true&cauthor_uid=26835905), [Dias, J.A](https://www.ncbi.nlm.nih.gov/pubmed/?term=Dias%20JA%5BAuthor%5D&cauthor=true&cauthor_uid=26835905), [Berkley, J.A](https://www.ncbi.nlm.nih.gov/pubmed/?term=Berkley%20JA%5BAuthor%5D&cauthor=true&cauthor_uid=26835905)., [Boey, C](https://www.ncbi.nlm.nih.gov/pubmed/?term=Boey%20C%5BAuthor%5D&cauthor=true&cauthor_uid=26835905)., [Cohen, M.B](https://www.ncbi.nlm.nih.gov/pubmed/?term=Cohen%20MB%5BAuthor%5D&cauthor=true&cauthor_uid=26835905)., [Cruchet, S](https://www.ncbi.nlm.nih.gov/pubmed/?term=Cruchet%20S%5BAuthor%5D&cauthor=true&cauthor_uid=26835905),…[Guarino A](https://www.ncbi.nlm.nih.gov/pubmed/?term=Guarino%20A%5BAuthor%5D&cauthor=true&cauthor_uid=26835905). (2016) Comparison of recommendations in clinical practice guidelines for acute gastroenteritis in children. *Journal of Pediatric Gastroenterology & Nutrition*. 63(2), 226-235. Retrieved from <http://journals.lww.com/jpgn/fulltext/2016/08000/Comparison_of_Recommendations_in_Clinical_Practice.11.aspx>

The Healthcare Simulation Standards of Best Practice™

<https://www.inacsl.org/healthcare-simulation-standards>

Setting/Environment

|  |  |
| --- | --- |
| Emergency Department  Medical-Surgical Unit  Pediatric Unit  Maternity Unit  Behavioral Health Unit | ICU  OR / PACU  Rehabilitation Unit  Home  Outpatient Clinic  Other: |

Equipment/Supplies

**Simulated Patient/Manikin(s)Needed:** Child or toddler manikin; SP to play Damon’s mother Amber.

**Recommended Mode for Simulation:** Manual, few vital sign changes needed during scenario

**Other Props & Moulage:** Damon should be dressed in a hospital gown and sitting in a crib. He has an IV securely taped (in arm or other desired IV site). He is wearing a wet diaper. He has faint adult-size hand-shaped bruises under each arm, consistent with being held tightly or lifted with excessive pressure. Damon’s mother is dressed appropriately, sitting at the bedside. IV fluids are running via desired pump at bedside. Damon’s vital signs on piece of paper (mother will provide to learners during simulation).

|  |  |
| --- | --- |
| **Equipment Attached to Manikin/Simulated Patient:**  ID band  IV tubing with primary line fluids running at 20 mL/hr  Secondary IV line running at \_\_ mL/hr  IVPB with \_\_ running at mL/hr  IV pump  PCA pump  Foley catheter with \_\_ mL output  02  Monitor attached  Other:  **Other Essential Equipment:** Blood pressure cuff, thermometer, stethoscope, telephone or method to contact provider  **Medications and Fluids:**  IV Fluids: IV 5% Dextrose in 0.45% Sodium Chloride on pump at 20 mL/hour  Oral Meds:  IVPB:  IV Push:  IM or SC: | **Equipment Available in Room:**  Bedpan/Urinal  02 delivery device (type)  Foley kit  Straight catheter kit  Incentive spirometer  Fluids  IV start kit  IV tubing  IVPB tubing  IV pump  Feeding pump  Crash cart with airway devices and emergency medications  Defibrillator/Pacer  Suction  Other: |

Roles

|  |  |
| --- | --- |
| Nurse 1  Nurse 2  Nurse 3  Provider (physician by phone)  Other health care professionals:  (pharmacist, respiratory therapist, etc.) | Observer(s): Any number of observers.  Recorder(s)  Family Member #1: Amber, Damon’s mother  Family Member #2  Clergy  Unlicensed Assistive Personnel  Other: |

Guidelines/Information Related to Roles

Learners in role of nurse should determine which assessments and interventions each will be responsible for, or facilitator can assign nurse 1 and nurse 2 roles with related responsibilities.

Information on behaviors, emotional tone, and what cues are permitted should be clearly communicated for each role. A script may be created from information in Scenario Progression Outline.

Prebriefing/Briefing

Prior to report, participants will need pre-briefing/briefing. During this time, faculty/facilitators should establish a safe container for learning, discuss the fiction contract and confidentiality, and orient participants to the environment, roles, time allotment, and objectives.

For a comprehensive checklist and information on its development, go to <http://www.nln.org/sirc/sirc-resources/sirc-tools-and-tips#simtemplate>.

Damon’s behavior may be difficult to simulate with a manikin. Bring this to the attention of learners during the prebrief. Ask them to listen to the mother’s descriptions of Damon’s behaviors and accept them as accurate.

Report Students Will Receive Before Simulation

**Time:** 1500

**Person providing report:** Nurse ending shift

**Situation:** Damon McAdam is a2 ½ year old boy, admitted through the emergency department yesterday for acute gastroenteritis with dehydration and unusual bruising.

**Background:** Damon McAdam was brought to the ED last night after having vomiting and diarrhea for 3 days. Child was lethargic and refusing any type of oral intake. Since admission, he has received a 250 mL bolus of Lactated Ringers solution followed by a solution of 5% dextrose in ½ normal saline. His IV started at 60 mL/hour, and then was decreased to 20 mL/hour this morning. He refused oral fluids overnight but this morning drank 200 mL of water and 50 mL of juice and kept it down. He’s been eating graham crackers also. His last stool was around midnight and was small and liquid. He has had 3 wet diapers since 0200 for a total output of 500 mL. His last specific gravity was 1.008. His last vital signs were: temp 37, HR 110, respirations 28, BP 80/65. His poor skin turgor has improved and his mucus membranes are now pink and moist.

Damon is up-to-date on his immunizations and receives regular well-child visits. His mother is very concerned about Damon’s recent development of some unusual behaviors like flapping his hands and not responding to his family members, as well as a loss of some previous language skills. She states that her husband Marshall is becoming frustrated with Damon, though she is not sure how he got the bruises on his torso, and she has not felt that her children were ever unsafe with him. The ED social worker talked with Mom briefly last night. This morning the pediatric/family social worker spent some time with her. Marshall is coming in later this afternoon to meet with the social worker. Dr. Patel is coming in this afternoon and if dehydration is resolved, he plans to stop the IV fluids, meet with parents and social services, and probably discharge with developmental clinic follow-up and a home assessment. Dr. Patel brought up the possibility of autism with Mom and she became very upset.

**Assessment:** Damon had gastroenteritis with dehydration that is resolving. He has a developmental delay with a new diagnosis of possible autism which needs to be confirmed by the developmental specialist. Unusual bruises have raised the possibility of maltreatment requiring parental and home assessment.

**Recommendation:** Damon needs vital signs checked and a focused assessment for dehydration. Notify Dr. Patel of the results. Continue to assess his behavior and support his parents. There will be a meeting with Damon’s parents, Dr. Patel, and the social worker regarding discharge that you will need to attend later today.

Scenario Progression Outline

**Patient Name:** Damon McAdam **Date of Birth:** MM-DD-YYYY (reflect age 30 months)

|  |  |  |  |
| --- | --- | --- | --- |
| **Timing (approx.)** | **Manikin/SP Actions** | **Expected Interventions** | **May Use the Following Cues** |
| **0-5 min** | Damon (manikin) whines and then screams when approached by learners. No recognizable words. He calms down when Mom holds him.  Mom: “Sorry he’s just so difficult with most people. I can tell he feels much better today though. He was barely moving last night, I was so worried.” | **Learners should begin by:**   * Performing hand hygiene * Introducing selves * Confirming patient ID | **Role member providing cue:** Mother  **Cue:** If learners don’t engage parent in patient encounter: Amber, “Let me help you. He will be better if I am holding him.” |
| **5-10 min** | Manikin can be programmed with these vital signs or mom can handlearner a card with vital signs:  T: 37.0  P: 108  R: 24  BP: 82/60  IV is securely taped and fluids infusing as ordered at 20 mL/hour  Amber “He looks so much better. His eyes were sunken in last night and now they look pretty normal. His mouth isn’t dry anymore. The nurses have been pinching his skin and now it snaps right back in place. I’m so glad he’s drinking and he even ate some crackers.”  Amber: “I’m so worried about him. He’s not like my other kids. He’s so much harder to deal with. Now there might be something major going on with him.” | **Learners are expected to:**   * Remove Damon’s clothing * Take vital signs * Assess for dehydration * Remove diaper and examine diaper area. Diaper is wet, no stool. * Examine IV site and assess fluids and pump * Note hand-shaped bruises under arms bilaterally | **Role member providing cue:**  Mother  Cue: If learners don’t assess IV site and fluids: Amber asks: “Is his IV ok? Does he still need it?” |

|  |  |  |  |
| --- | --- | --- | --- |
| **10-20 min** | Damon is playing with Mom’s cell phone.  Amber: “All this is so hard – Dr. Patel wants me to get him tested for autism, and then there are those bruises…. but I’m glad someone is finally going to look into what’s going on. There are so many questions. We need help.”  Mom: Do you think he will be discharged today or tomorrow? | **Learners are expected to:**   * Listen to Mom’s concerns about Damon * Provide support * Prepare for discharge conference * Discuss plan for discharge   SBAR to Dr. Patel should include:   * Vital signs * Signs of resolving dehydration * Synopsis of Amber’s concerns | **Role member providing cue:**  Dr. Patel (on phone)  If learners do not provide appropriate SBAR, Dr. Patel will prompt for vital signs, signs of resolving dehydration. |

Debriefing/Guided Reflection

Note to Faculty

We recognize that faculty will implement the materials we have provided in many ways and venues. Some may use them exactly as written and others will adapt and modify extensively. Some may choose to implement materials and initiate relevant discussions around this content in the classroom or clinical setting in addition to providing a simulation experience. We have designed this scenario to provide an enriching experiential learning encounter that will allow learners to accomplish the listed objectives and spark rich discussion during debriefing. There are a few main themes that we hope learners will bring up during debriefing, but if they do not, we encourage you to introduce them.

**Themes for this scenario:**

* Assessment for specific signs of resolving dehydration in 2-year-old.
* Discussion of disciplines (and their roles) that may be useful at discharge conference.
* Learners’ personal feelings related to discharging Damon back to his home environment.
* Helping parents cope with a child who may have a chronic condition and its impact on the family.

We do not expect you to introduce all of the questions listed below. The questions are presented only to suggest topics that may inspire the learning conversation. Learner actions and responses observed by the debriefer should be specifically addressed using a theory-based debriefing methodology (e.g., Debriefing with Good Judgment, Debriefing for Meaningful Learning, PEARLS). The debriefing questions for consideration are organized into the phases of debriefing, as recommended by the Healthcare Simulation Standard of Best Practice™ The Debriefing Process. The following phases are included below: Reactions/Defuse, Analysis/Discovery and Summary/Application. Remember to also identify important concepts or curricular threads that are specific to your program.

|  |  |
| --- | --- |
| **Debriefing Phase** | **Debriefing Questions for Consideration** |
| Reactions/ Defuse | How did you feel throughout the simulation experience? |
| Give a brief summary of this patient and what happened in the simulation. |
| What were the main problems that you identified? |
| Analysis/ Discovery | Discuss the knowledge guiding your thinking surrounding these main problems. |
| What were the key assessment and interventions for this patient? |
| Discuss how you identified these key assessments and interventions. |
| Discuss the information resources you used to assess this patient. How did this guide your care planning? |
| Discuss the clinical manifestations evidenced during your assessment. How would you explain these manifestations? |
| Explain the nursing management considerations for this patient. Discuss the knowledge guiding your thinking. |
| What information and information management tools did you use to monitor this patient’s outcomes? Explain your thinking. |
| How did you communicate with the patient? |
| What specific issues would you want to take into consideration to provide for this patient’s unique care needs? |
| Discuss the safety issues you considered when implementing care for this patient. |
| What measures did you implement to ensure safe patient care? |
| What other members of the care team should you consider important to achieving good care outcomes? |
| How would you assess the quality of care provided? |
| What could you do improve the quality of care for this patient? |
| Summary/ Application | If you were able to do this again, how would you handle the situation differently? |
| What did you learn from this experience? |
| How will you apply what you learned today to your clinical practice? |
| Is there anything else you would like to discuss? |

Guided Debriefing Tool

The NLN created a Guided Debriefing Tool to provide structure from which facilitator observations can make objective notes of learner behaviors in simulation in direct relationship to the learning outcomes. [Download the NLN Guided Debriefing Tool](https://www.nln.org/docs/default-source/uploadedfiles/professional-development-programs/sirc/guided-debriefing-tool.docx?sfvrsn=f659d27e_3).