

# CASE STUDY PRESENTATION

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# CASE STUDY:

**ARI IS A TYPICALLY DEVELOPING 3-YEAR-OLD BOY NEWLY DIAGNOSED WITH ACUTE LYMPHOBLASTIC LEUKEMIA (ALL). HE IS ADMITTED TO THE PEDIATRIC INPATIENT UNIT FOR HIS FIRST ROUND OF CHEMOTHERAPY. HIS MOTHER AND FATHER ARE AT BEDSIDE; HE HAS A 7YO SISTER AT HOME WHO IS BEING TAKEN CARE OF BY GRANDPARENTS. ARI IS VERY FEARFUL OF ALL MEDICAL STAFF AND WILL CRY AND HIDE WHEN STAFF ENTER THE ROOM MAKING IT VERY DIFFICULT FOR STAFF TO COMPLETE THEIR TASKS. MOM SHARED PRIOR TO HIS DIAGNOSIS/HOSPITALIZATION HE WAS A VERY SOCIAL AND PLAYFUL 3YO. ARI IS SCHEDULED TO HAVE HIS MEDIPORT PLACED UNDER SEDATION. HIS PARENTS ARE ASKING HOW TO TALK WITH HIM AND HIS SISTER ABOUT HIS LEUKEMIA.**

# What is Acute Lymphoblastic Leukemia?

## Signs and Symptoms

- Anemia
- Bruising
- Bone, joint abdominal pain
- Swollen lymph nodes
- Fevers
- viral or bacterial infection
- Fatigue
- pale skin

## Background

- Most common form of Leukemia in children
- Although it makes up for 30% of pediatric patients, it is one of the most curable
- ALL primarily affects your bone marrow! In the bone marrow, there are lymphoblasts that mature into healthy lymphocytes
- However, ALL leukemia lymphoblasts never mature, instead they multiply and crowd out other blood cells and platelets BEFORE moving into the bone marrow then invading other organs/blood stream

# Procedures to Determine Diagnosis



## Complete Blood Count (CBC)

This is a blood draw with an IV that determines the white blood cell count and platelets

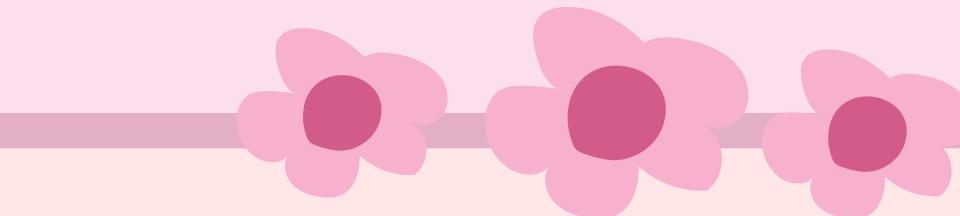


## Lumbar Puncture- Spinal Tap

The next one is lumbar puncture, AKA spinal tap. Spinal taps are done by inserting a needle between the bones of a spinal column and removing the fluid that surrounds the brain and spinal cord.

## Bone Marrow Aspiration

This is done by inserting a needle in the child's pelvis or spine then removing marrow for examination. With this diagnostic test, sedation or anesthesia is needed.



## Additional testing

This test allows physicians to see if a mass of cells that may affect breathing.

# Treatment- Chemotherapy

## Remission induction therapy

- which destroys as many leukemia cells as possible, so ALL goes into complete remission.
- Typically, people remain in the hospital during remission induction therapy.
- This treatment takes place over four to six weeks.

## Consolidation therapy

- begins once ALL is in remission.
- This treatment works to destroy as many remaining cancerous cells as possible.
- Consolidation therapy involves being in the hospital for several months while you receive high-dose chemotherapy administered weekly.

## Central nervous system-directed therapy

kill any leukemia cells in your central nervous system and keep ALL from spreading to your spinal fluid.

## Maintenance Therapy

long-term treatment that may last two to three years. You don't have to be in the hospital to receive maintenance therapy.

# ASSESSMENT

## HEALTHCARE VARIABLES

### PATIENT DIAGNOSIS:

ACUTE LYMPHOBLASTIC LEUKEMIA (ALL)

### PATIENT CARE PLAN:

- Inpatient due to first chemotherapy session
- Scheduled to have mediport procedure

UNDER sedation

### Medical History, Hospitalization Experiences:

- Fearful of medical staff
- Cries and hides when staff enters room
- Staff find it difficult to complete tasks
- Newly diagnosed

## CHILD VARIABLES

### AGE: 3 years old

Interests: Bluey, spider man, social with peers outside of hospitalization, bubbly

Fears/concerns/triggers: Fearful of medical staff

Demeanor: Cries and hides in mom's lap when staff enter room

Social Dynamic: Dual parent household, grandparents watch sister, mother works remote and dad works full time

Understanding of treatment: He is unaware

## FAMILY VARIABLES

- parents are at bedside
- Mom moved to United States 10 years ago
- Ari has local support system to support needs
- Ari has a 7 year old sister (Samantha) who is in school full time
- Sister stays with grandparents while brother and parents are at the hospital
- Sister is unaware of diagnosis
- Parents have the assistance of a local church that supports his diagnosis

# THERAPEUTIC ACTIVITY - SYRINGE PAINTING

Goal Age Group: 3

necessary materials: syringes, gauze, bandaids, med tape, paint, spider man coloring page

Space needed: Playroom

Detailed procedure:

1. Reintroduce myself to Ari
2. Introduce the coloring page with his favorite character on it
3. Ask Ari if he wants to go to the playroom to do the painting activity. Prior to walking to the playroom, the supplies will already be laid out when entering the room
4. Introduce and ask Ari if he knows what the syringes, bandages, gauze, med tape is. Through this step, I would determine what his misconceptions are about the various medical supplies do.
5. Based on the previous step, I would provide education on the medical supplies and their purpose if there is a misconception. This can provide an opportunity to normalize the medical supplies
6. As we are using the painting tools, I will ask how the tools make him feel
7. After the activity, I will reassure that if he has any other questions in regards to the supplies or his time in the hospital that I could help!

Goal: Assist in clarifying misconceptions about various medical supplies that is going to be used through Aris hospitalization and normalize the medical supplies as well.

# Therapeutic Activity - Blood Soup

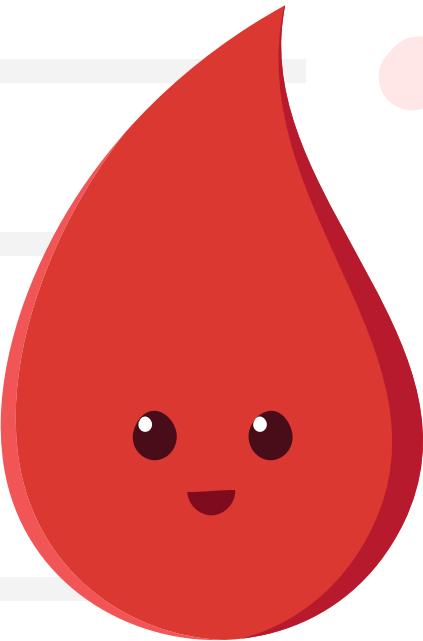
Goal Age Group: 7

necessary materials: red orbeez, ping pong balls (WBC), erasers (platelets), clear bin, blue orbeez (lymphocytes), spoon

Space needed: Playroom

Detailed procedure:

1. Reintroduce myself to Samantha (sister)
2. Ask her what she knows about her brothers recent diagnosis. Once she explains what she has been told, I would introduce the activity
3. Ask her if she wants to go to the playroom to do the blood soup activity. Prior to walking to the playroom, the supplies will already be laid out when entering the room
4. Introduce and ask Samantha if she knows what our blood is made up of. Through this step, I would determine what her misconceptions are about the blood and tell her what each material is entering the bin. Once we mix all of the primary components of "blood", I will ask what she thinks the blue orbeez are.
5. Based on the previous step, I would provide education on the blue orbeez and what they represent in her brothers blood. I would explain how her brother has the diagnosis of Acute Lymphoblastic Leukemia. In this step, I explain how in her brothers blood, there are cancer cells which are called lymphoblasts that multiply into his blood and push away our healthy cells. After explaining this step, we would mix the blue orbeez into the bin and ask if she has any questions.
6. As we are utilizing the materials, I would tell her that there is a treatment that helps him get better. It is a special medicine called chemotherapy that helps remove the bad cells! I would provide her a spoon that demonstrated how the special medicine works
7. After removing the majority of the blue orbeez, I would ask her if she has any questions about her brothers diagnosis and let her know that if she has any questions, that I will be here to support!



Goal: The goal of this therapeutic activity is to educate Aris sister, Samantha, on her brothers recent diagnosis and clarify misconceptions.

# PROCEDURE PREPARATION



THIS A SPECIAL MASK THAT GOES OVER MY NOSE AND MOUTH. THIS IS HOW I WILL GET SPECIAL MEDICINE TO HELP MY BODY GO TO SLEEP

THE MASK  
IS SOFT AND  
SQUISHY!



THIS IS WHERE MY FAMILY WILL BE  
DURING MY SURGERY



IF I FEEL SCARED...  
I CAN...

PLAY WITH MY TOY



THINK ABOUT SOMETHING THAT MAKES  
ME HAPPY



HOLD MOM OR DADS HAND



I WILL MEET DOCTORS AND NURSES  
WHO WILL TAKE CARE OF ME. THEY WILL BE  
ASKING LOTS OF QUESTIONS



ONCE WE ARE DONE TALKING, MY DOCTOR WILL  
WHEEL ME TO ANOTHER ROOM



WHEN I WAKE UP, MY FAMILY WILL BE IN  
MY ROOM



THE ROOM MIGHT BE BRIGHT AND COLD BUT THAT  
IS OKAY THERE ARE LOTS OF WARM BLANKETS

I WILL GET A POPSICLE  
AFTER MY SURGERY!



Any questions?