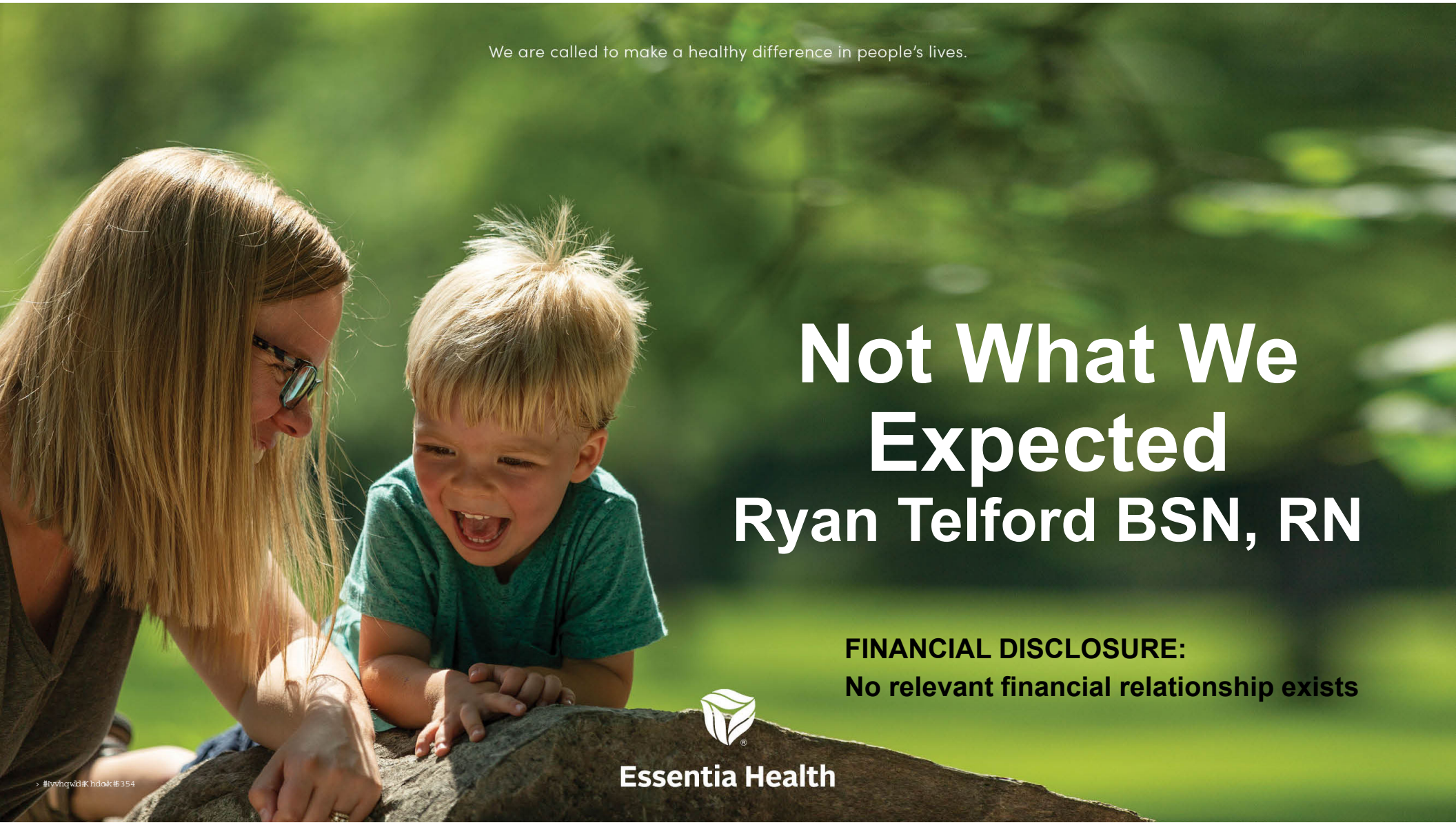
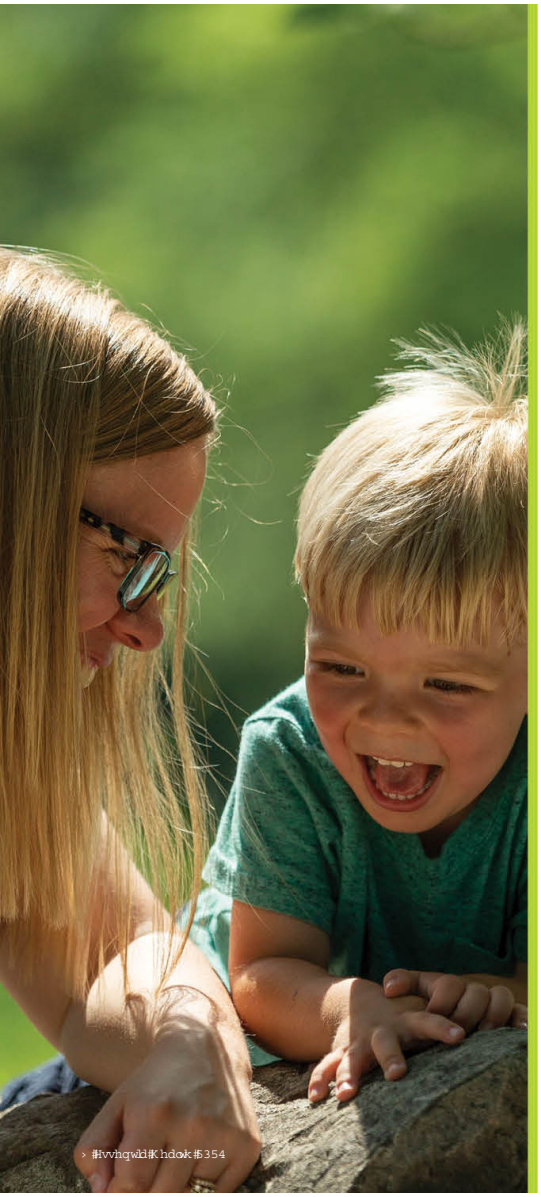
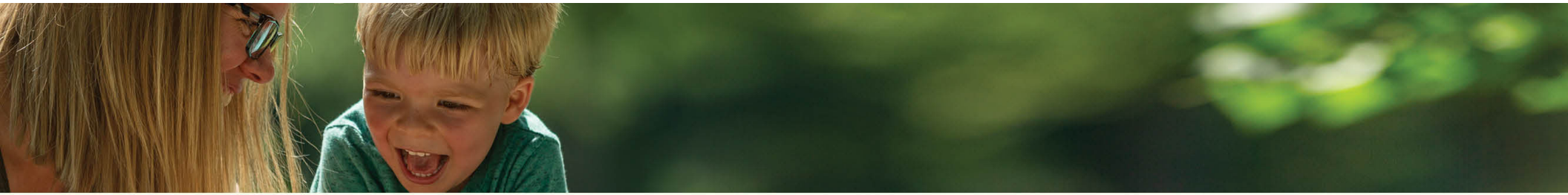

We are called to make a healthy difference in people's lives.
Not What We Expected
Ryan Telford BSN, RN
FINANCIAL DISCLOSURE:
No relevant financial relationship exists
Essentia Health

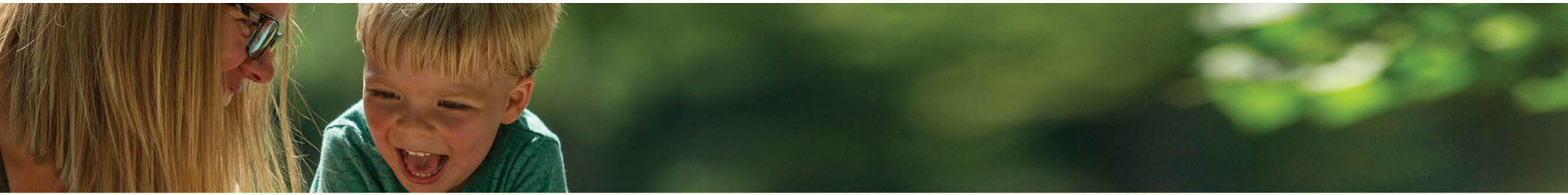


- 21yo Male presented to the Walk-In Clinic with nasal congestion, rhinorrhea, and cough x 11 days. Denied fever, chills, body aches.
- PMH: Sever's Disease, T&A removed
- <u>Vital signs:</u>
- BP – 118/79
- P – 123
- R – 18
- O2 Sats – 96% RA
- T – 97.1F



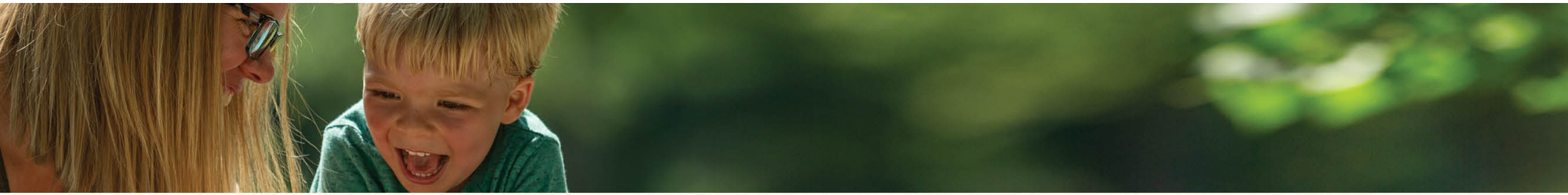
Providers Assessment

- ENT – + nasal drainage, ears & throat clear
- Neck – Negative
- Chest – Clear lungs. Tachycardia with S3, no murmur
- Skin – Negative
- GI – Bowel sounds x 4 quadrants, 2-3 diarrhea/day



Providers orders

- Chest Xray
- EKG → Right axis deviation, incomplete RBBB, T-wave abnormality, consider inferior ischemia
- CBC with differential
- Electrolytes
- Thyroid screen

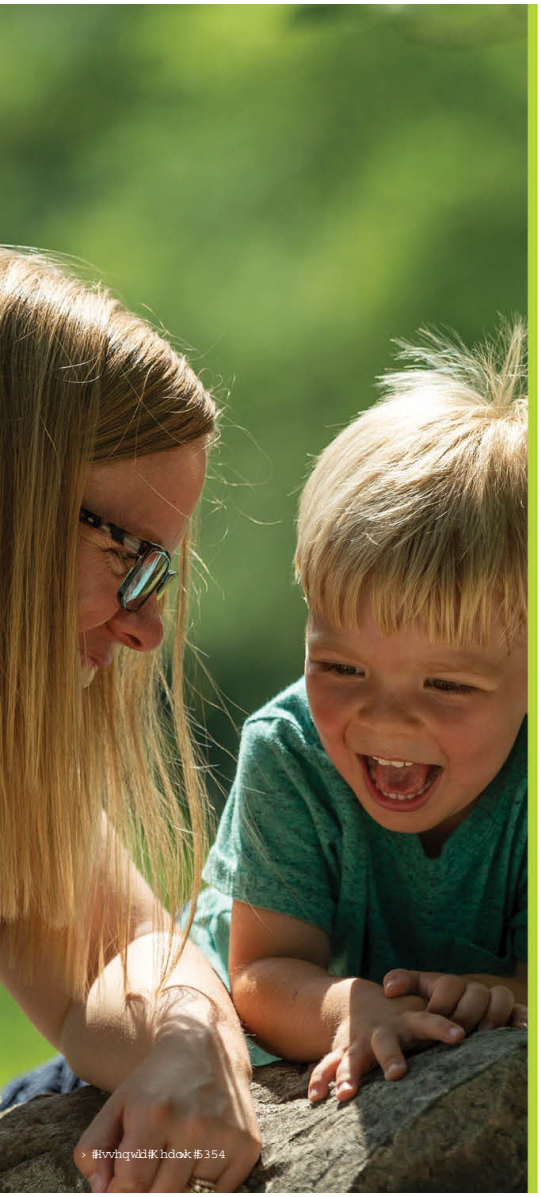


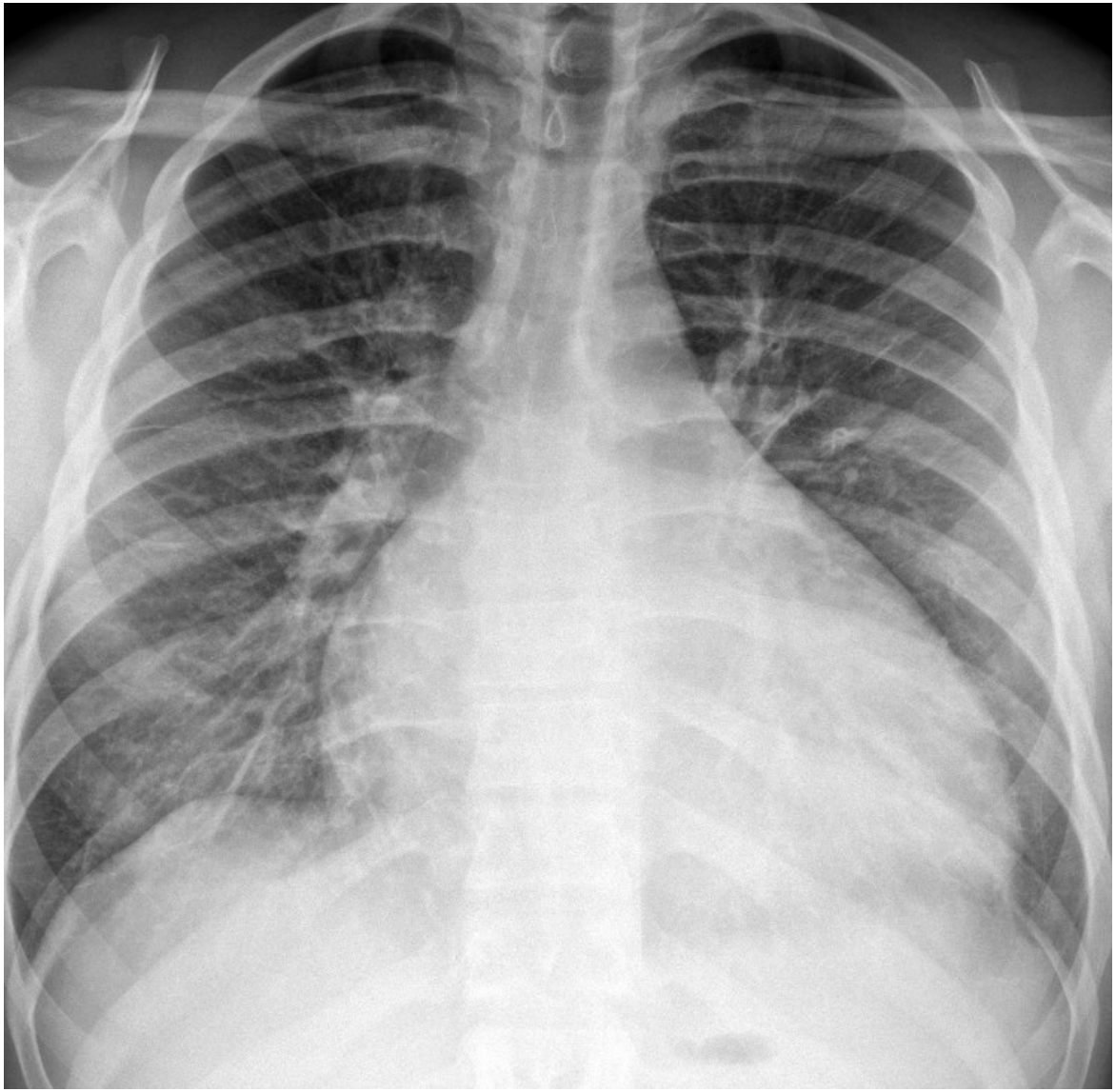
Providers Disposition

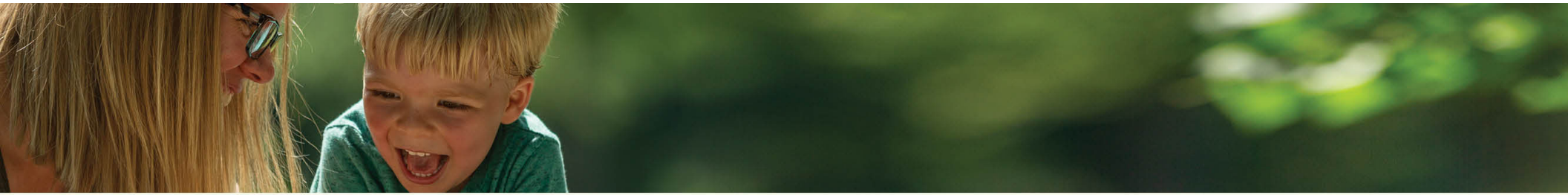
- Dx – Viral URI with cough
- Discharged with saline spray and Flonase for nasal/sinus drainage
- Increase oral fluids, Pepto Bismol or Imodium for diarrhea
- Follow up with PCP in 2-3 days
- She would call him back with CXR and Lab results

CXR Results

- No infiltrate, pneumothorax, or effusion. Enlargement of cardiac silhouette. Could be related to cardiomegaly or possibly pericardial effusion.







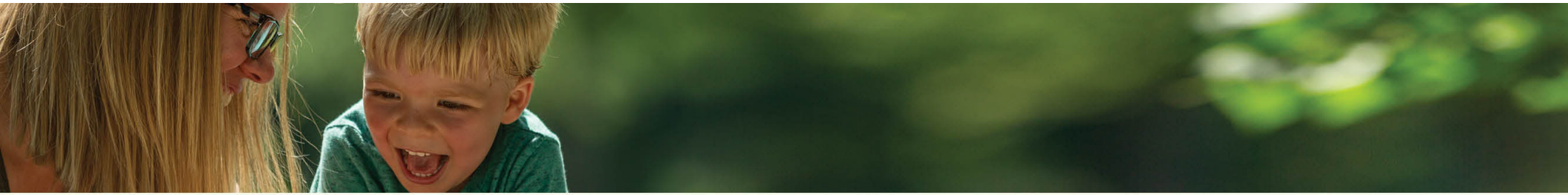
Clinic Provider

- She consulted that same day with Cardiology about the EKG and CXR results
- She then called and spoke with patient on the phone later that day. He was to have an OP Echo within the next 3 days and to be seen sooner if any worsening symptoms

Three days later….

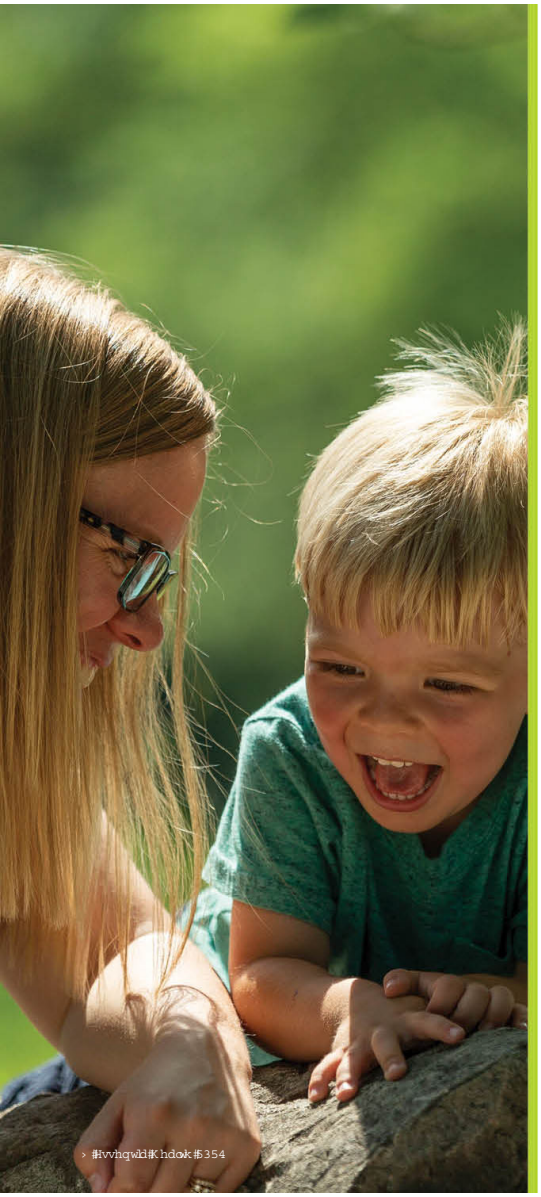
- Pt presented to same Walk-In Clinic for follow up and now having trouble swallowing food, “pins and needles” in his legs below his knees, and having chest discomfort. He was scheduled for his Echo later that day.

- <u>Vital signs:</u>
- BP – 94/70
- P – 125
- R – not validated
- O2 Sats – 98% RA
- T – 96.1F



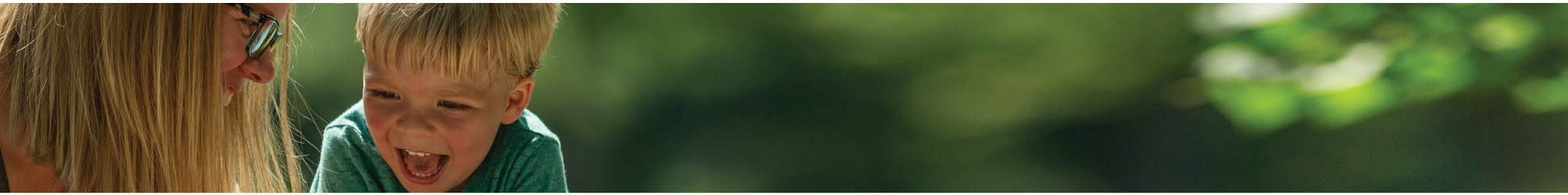
Clinic Provider

- With the changes in his symptoms and his VS getting worse, the patient was instructed to go directly to the ED for a stat Echo. Provider called One Call to notify them of the patient being transferred from the Clinic. Pt decided to drive himself to the ED.



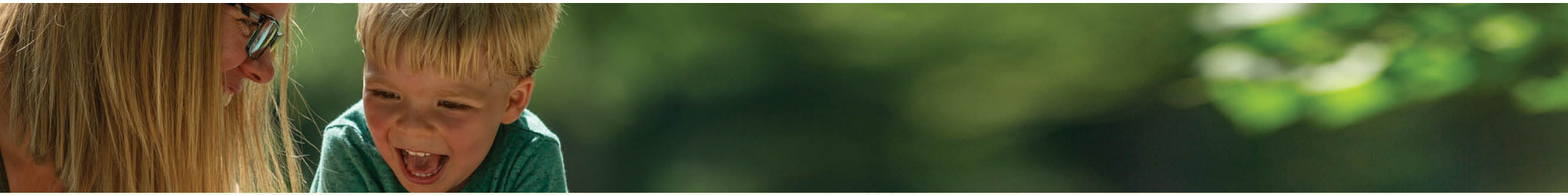
Emergency Department

- Pt presented to Triage in the ED and now having diaphoresis and shortness of breath, along with his chest pain, tachycardia, etc



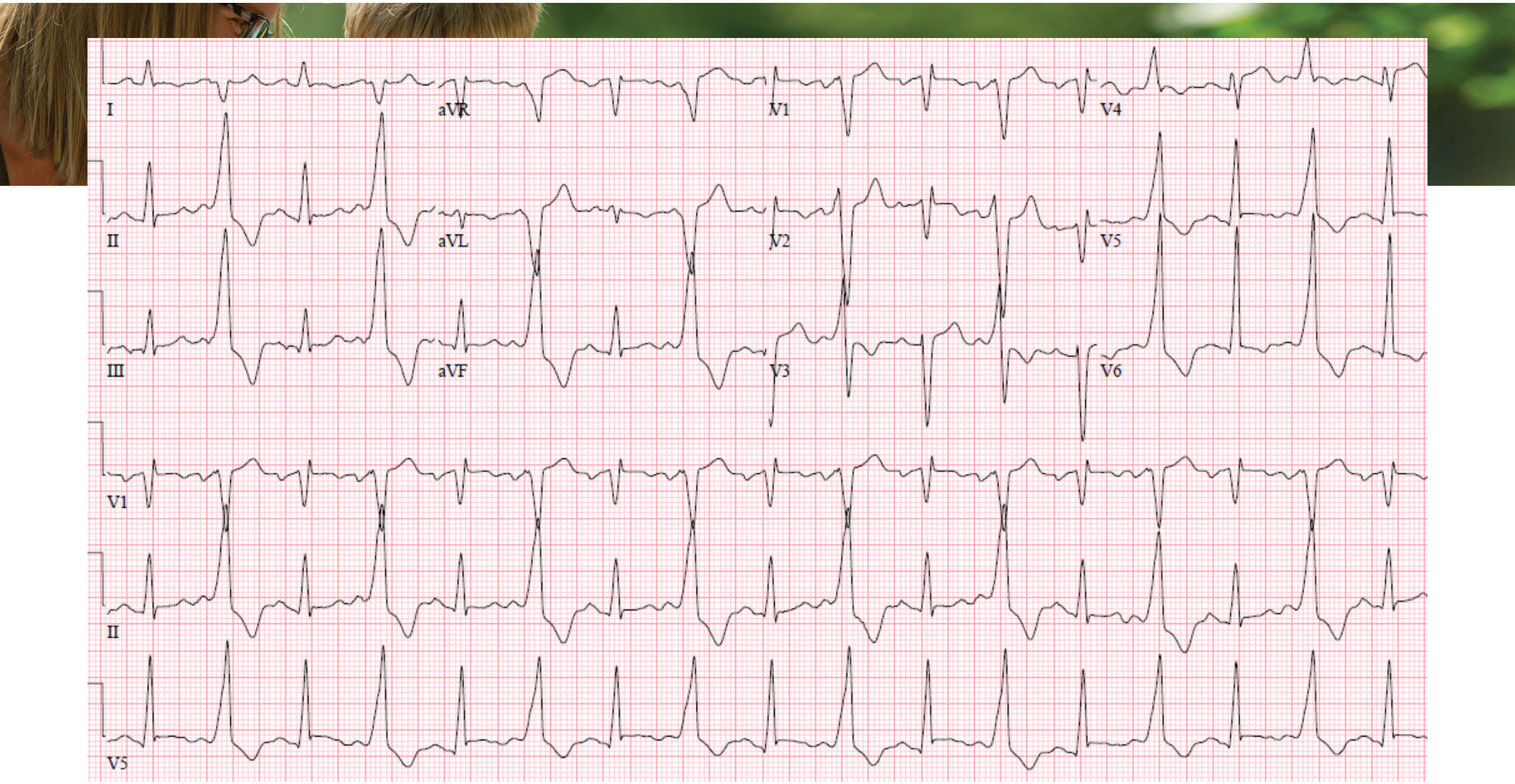
ED Provider

- Spoke with the Clinic Provider on phone to give him a heads up about patient
- Due to having CP, SOB, known cardiomegaly, the ED Provider saw the patient
- Orders an EKG, Labs, and CXR

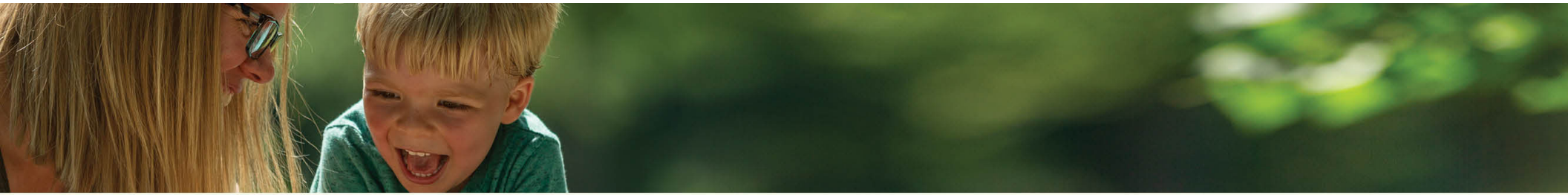


ED Provider

- EKG completed in the ED. EKG read Acute MI/STEMI with prolonged QT and RBBB.
- ED Provider called Cardiology to consult. But was this a real STEMI?

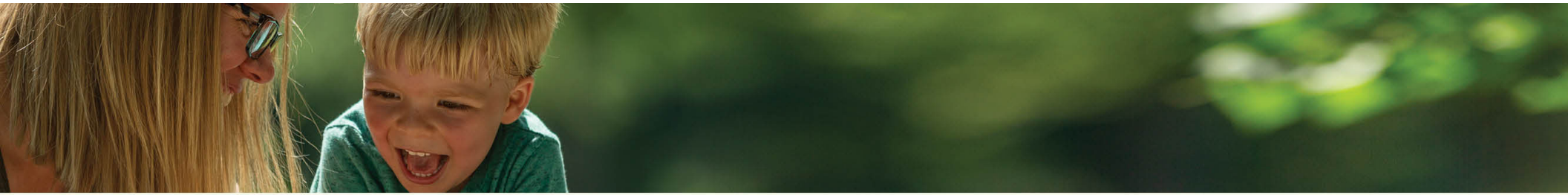


Essentia Health



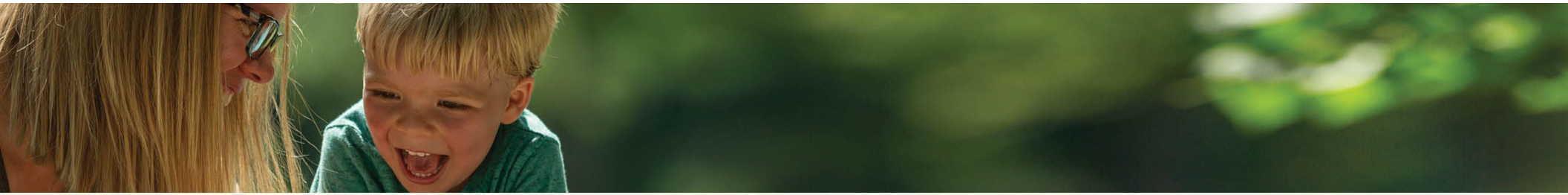
ED Provider

- Cardiologist was in-house rounding at the time and came to see patient
- Cardiologist ordered a stat Echo before he went in to see patient
- Patient was awake, alert, and talkative at that time



Emergency Department

- During Echo, patient started developing runs of V-Tach (4-5 beats)
- Lab results returned:
  - Troponin 0.68 H
  - BNP 1,932 H
  - D-Dimer 3.18 H
  - Creatinine 1.32 H
  - Albumin 2.8 L
  - Covid Negative

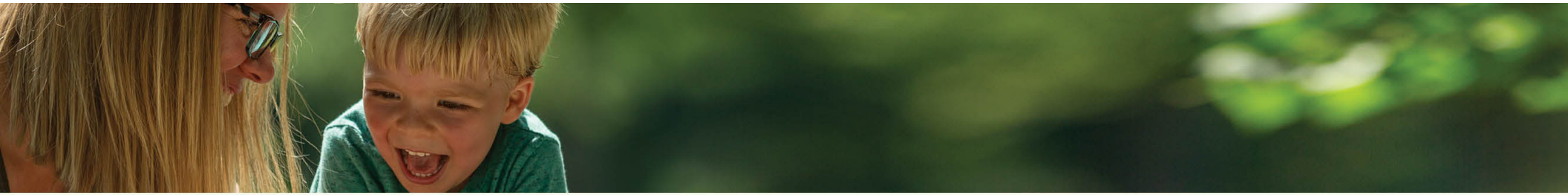


Emergency Department

- Cardiologist was in the room during Echo
- Patient has a severely reduced EF <20%. LV severely enlarged with global hypokinesis. RV and Atria severely enlarged
- Cardiologist assesses the patient, labs, EKG, and Echo and decides to take patient to the Cath Lab to figure out if this was truly a STEMI

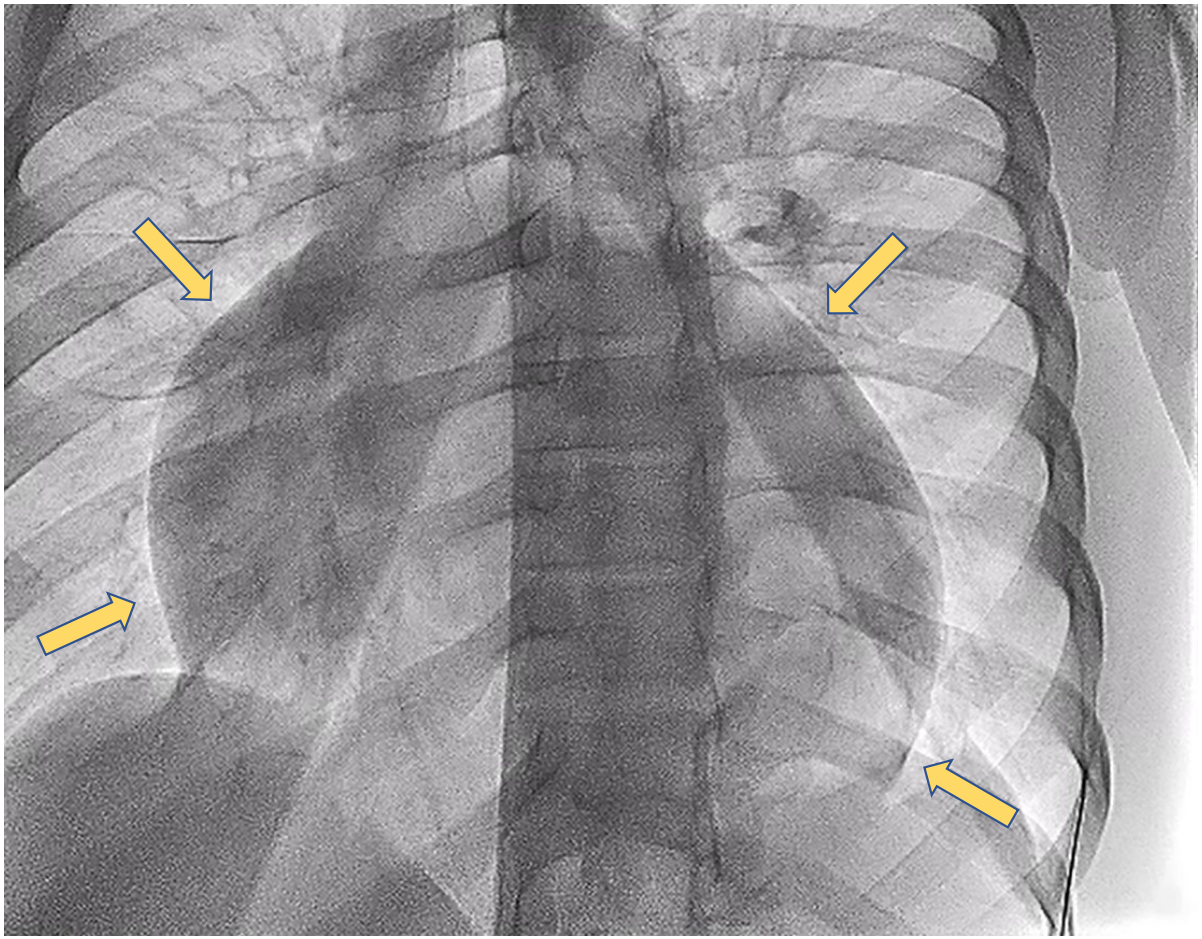
Taken to Cath Lab

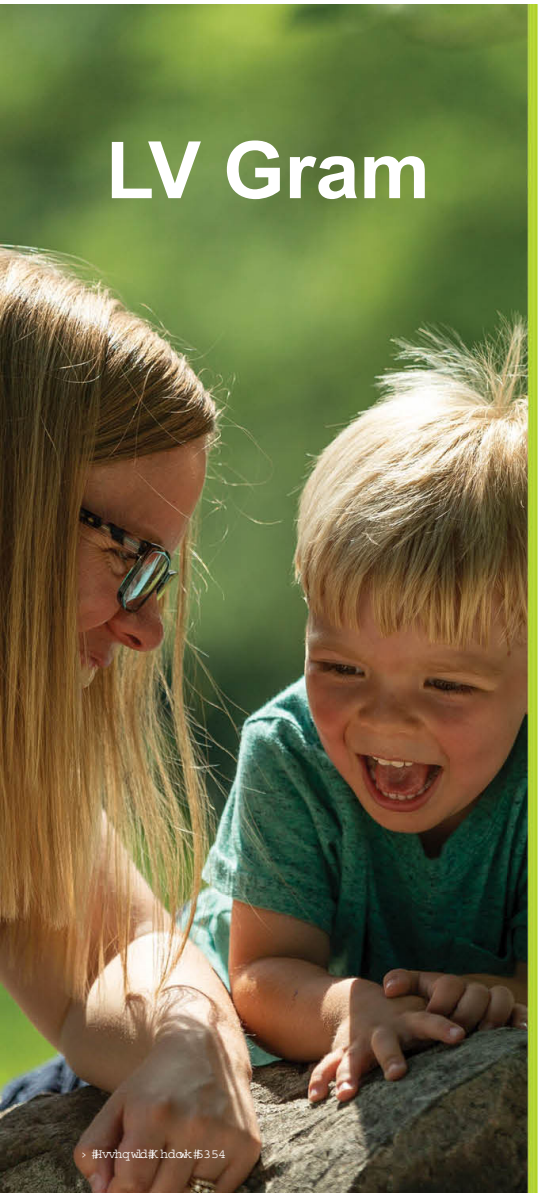
- Indications:
  - Chest Pain
  - + Troponin
  - ST elevation in V1-V4
  - Acute Heart Failure (EF <20%)
  - Acute RV systolic dysfunction
  - Ectopy (V-tach runs)

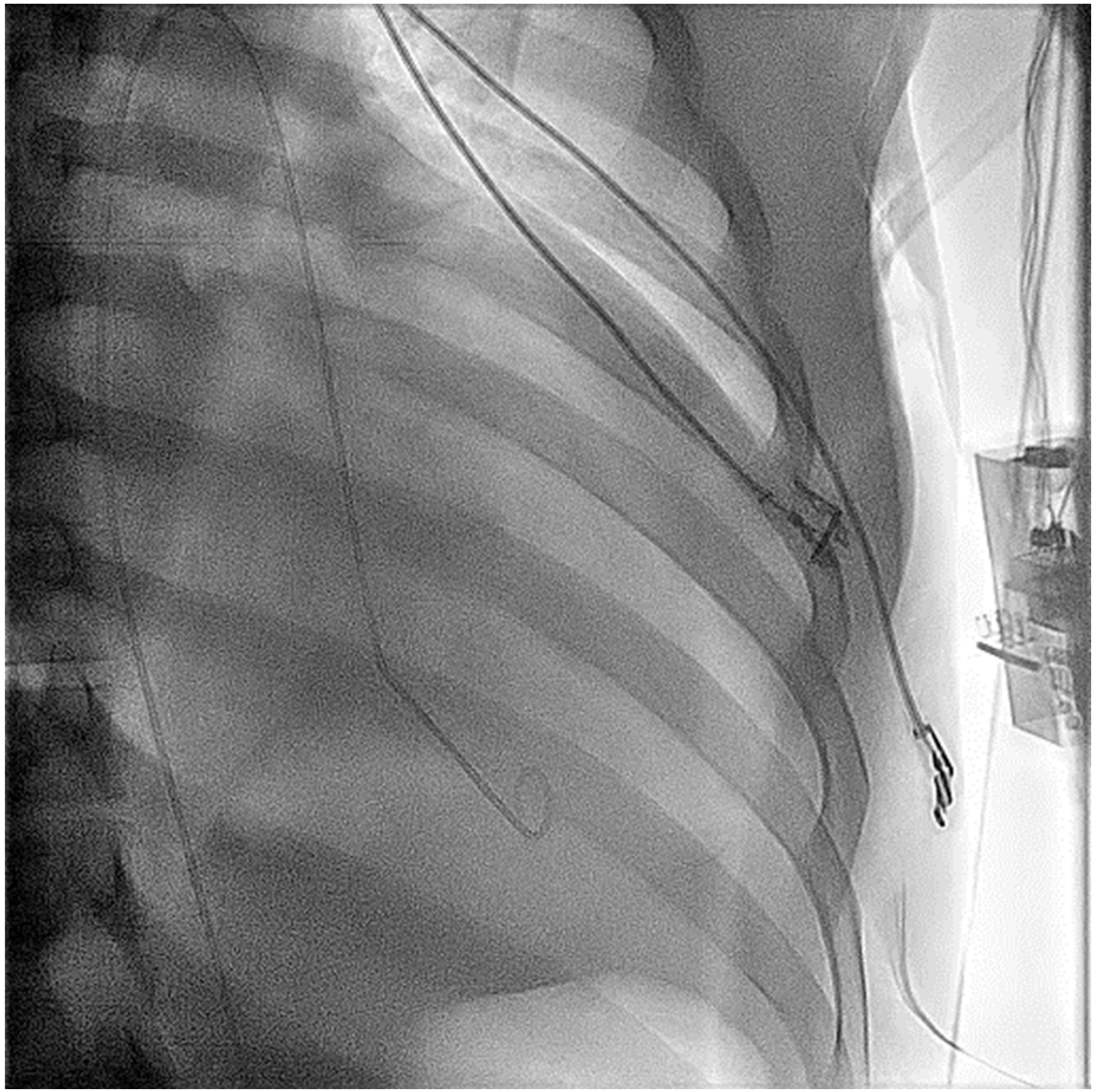


Cath Lab

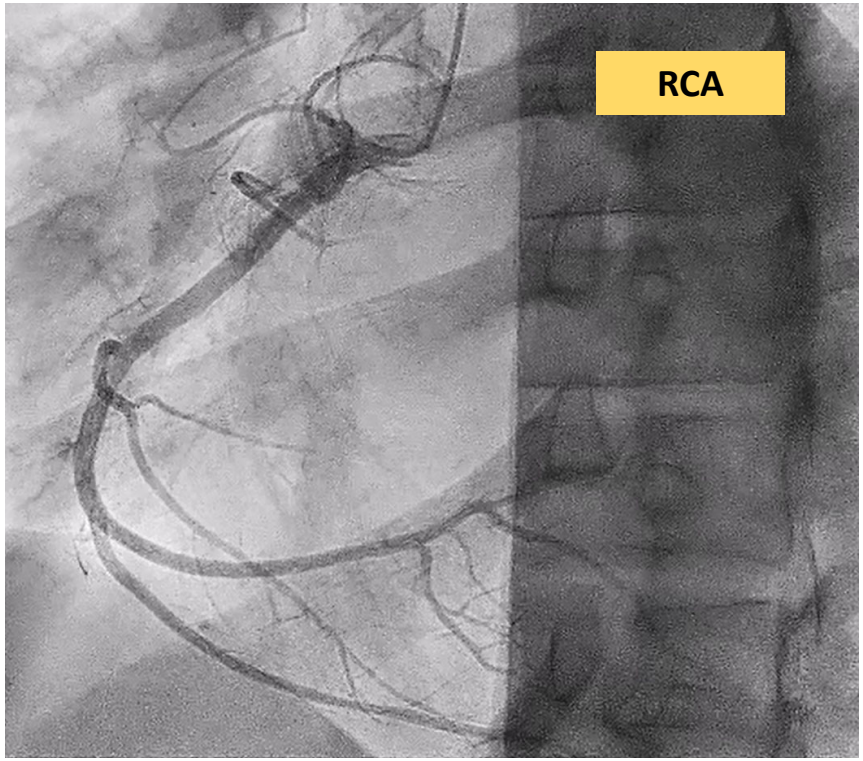
- Patient laying supine
- Now becoming hypotensive → systolic BP 80, 77, 81
- Got right radial access
- First thing they shoot is a non contrast view of chest and this is what they see

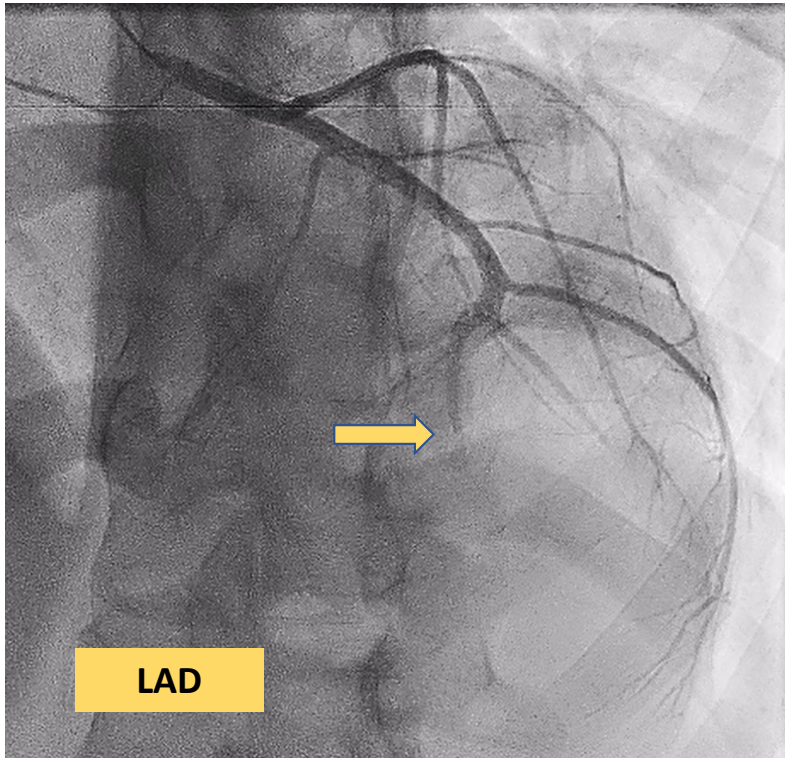


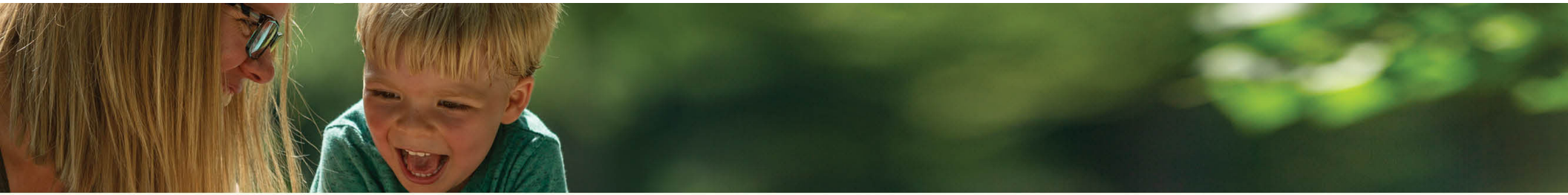

LV Gram



Right and Left systems

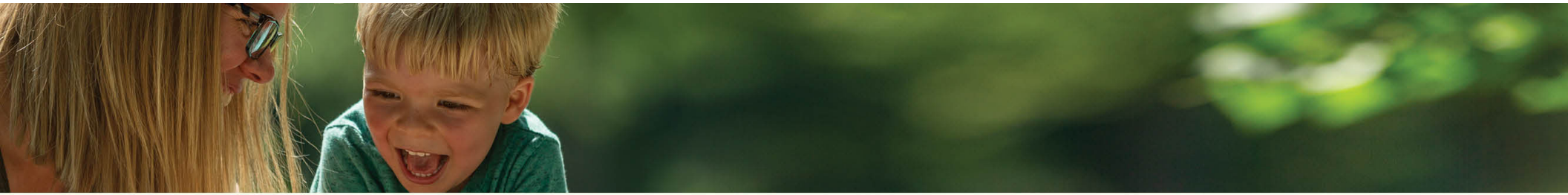






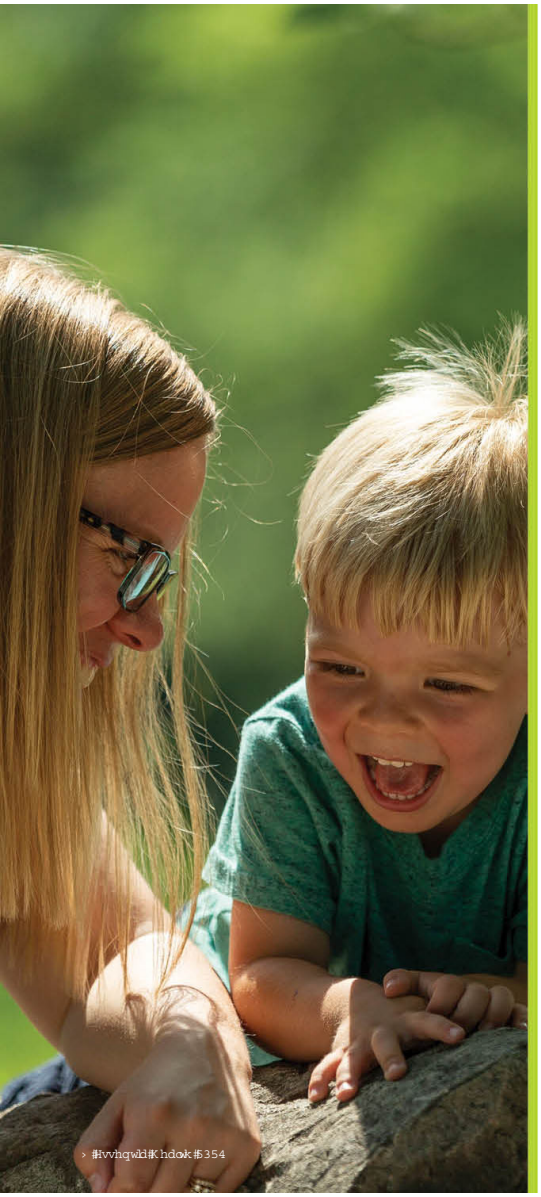
Cath Lab

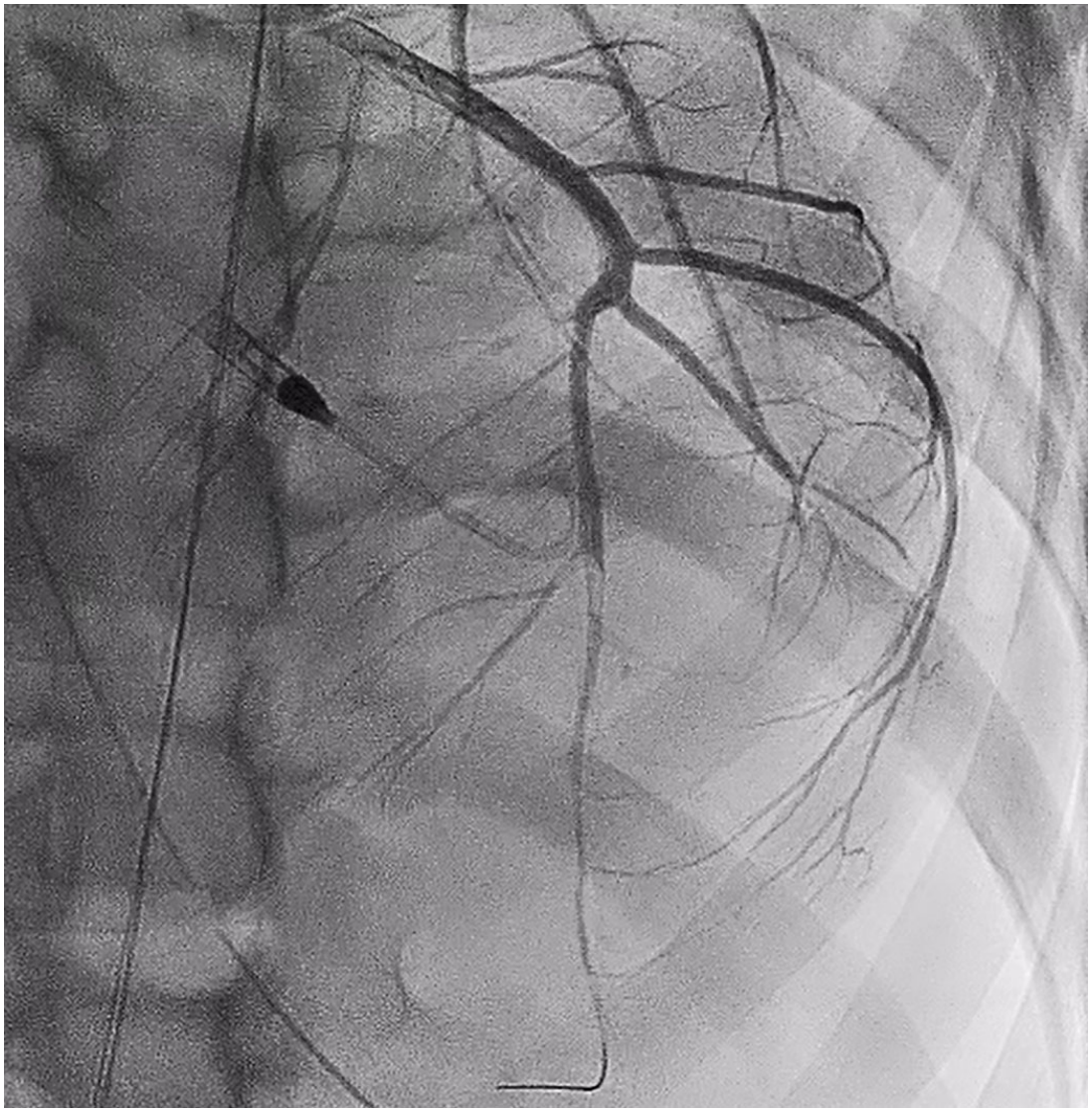
- Due to complexity and severity of case, an Impella was placed prior to starting the intervention of LAD
- Anesthesia, CCU Provider, and RT also called to intubate and sedate the patient for the case
- Patient was intubated without medication!

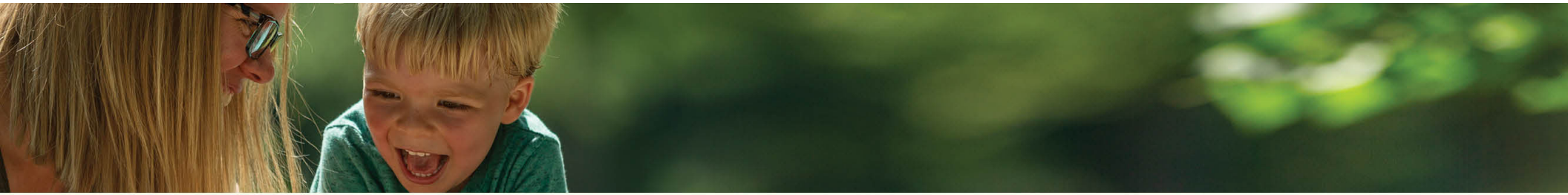


Cath Lab

- VS improve and patient more stable now with intubation and Anesthesia handling the sedation
- Attempted to aspirate large clot in LAD. Used Penumbra and manual aspiration catheters
- Inflated small 2.0x12mm compliant balloon
- Attempted to aspirate again







Cath Lab

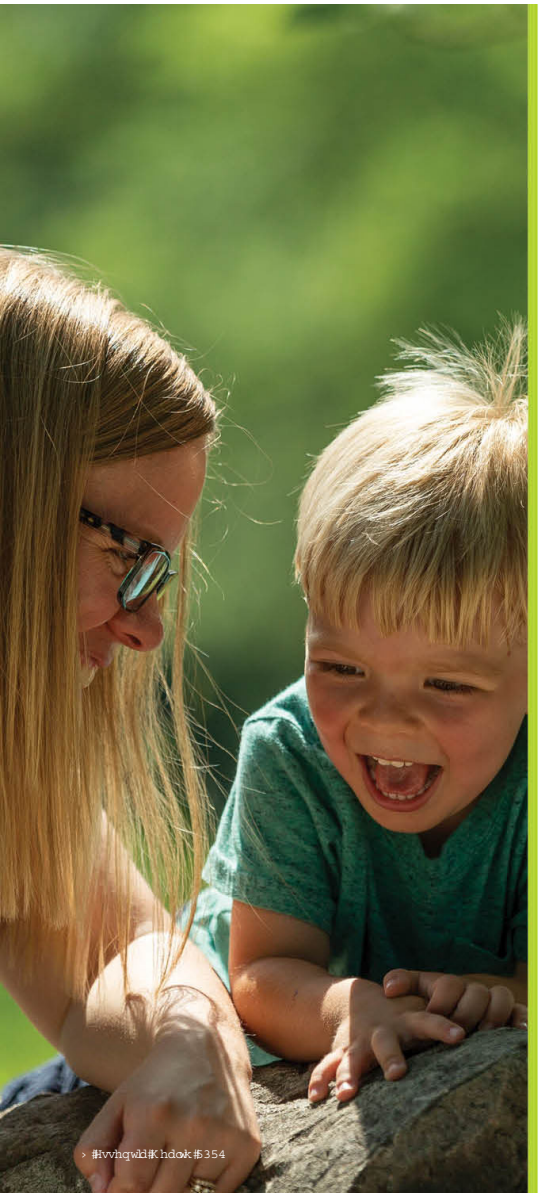
- At this point, our Cardiologist and CCU Provider decided to contact U of M about transferring out
- We could not provide the highly advanced cardiac care this patient needed → LVAD
- Patient was accepted by U of M – Fairview and transported via air to them with Impella, Integrilin gtt, ETT, and vasopressive support

What happened?

- Differential diagnosis:
  - Acute Viral illness - maybe
  - Atrial fibrillation - maybe
  - Unknown cause

Follow up

- Soon after arrival to Fairview, pt was placed on ECMO
- Later that evening, he developed an acute left femoral artery thrombosis and cold leg that required IR intervention to remove
- Two days later he received a Left Ventricular Assist Device (LVAD) and RVAD
- Had multiple cerebral strokes
- Last known was he had a Heartmate 3 and is awaiting a transplant



What questions do you have?