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# WILDFIRE DISASTER PREPAREDNESS: HOW TO PREPARE AND LESSONS LEARNED

PRP

PEDIATRIC READINESS PROGRAM

SERVING OREGON & SW WASHINGTON

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May 13, 2021

# CME Disclosure

- All activity faculty and planners disclosed they have no relevant financial relationship(s) with any entity producing, marketing, re-selling, or distributing health care goods or services consumed by or used on patients.

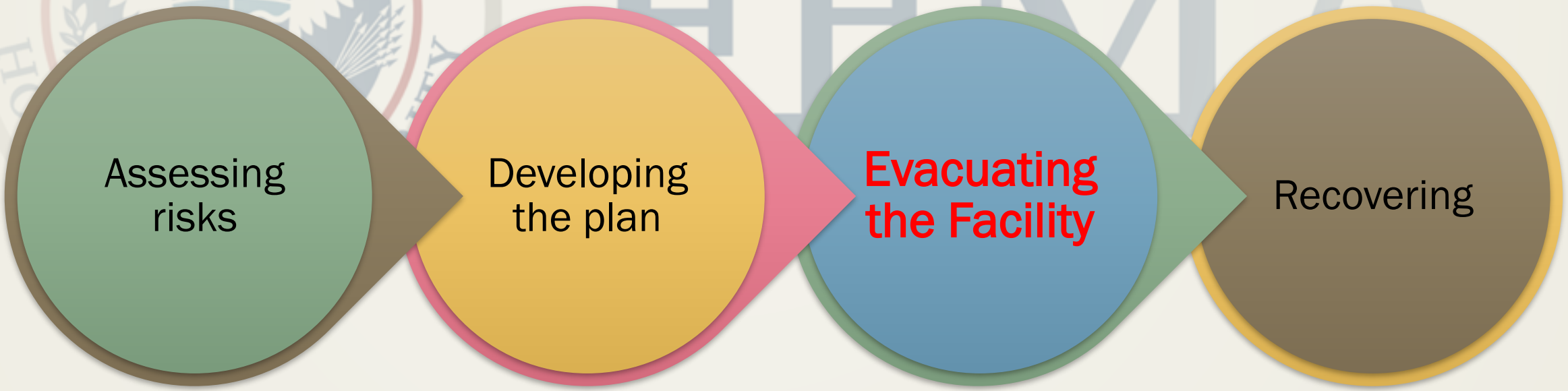
# Objectives

- Discuss components of an emergency evacuation plan for different types of evacuation
- Review two recent local pediatric patient evacuation experiences
- Understand regional and state support for pediatric patient evacuation

# Hospital Evacuations


Justin W. Sales MD, MPH

# Stages of Preparing for an Evacuation



# Six Critical Planning Areas

- **Communications**
- **Resources & Assets**
- **Safety & Security**
- **Staff Responsibilities**
- **Utilities Management**
- **Patient & Clinical Support Activities**

# Evacuating the Facility

- Shelter-in-Place
- Evacuation
  - *Horizontal/Vertical*
  - *Partial*
  - *Complete*
- Shelter-in-Place vs. Evacuation

# Shelter in Place or Evacuate?

- Nature of the event
- Anticipate effects on facility and surrounding community


CRITICAL TO HAVE INPUT FROM ALL PARTNERS

# EVACUATION OF KSMC LEVEL III NICU

Hillary Nicholson, MD, PhD
Medical Director, Neonatal Intensive Care Unit (NICU),
Kaiser Sunnyside Medical Center

# Wednesday 9/9/2020

- Hospital was in a level 1 evacuation zone, “be ready”
- Making preliminary plans for evacuation
- Total census of 14
  - *4 level III patients → to OHSU*
  - *5 level II patients → to KWMC*
  - *Of the 14 patients, 2 patients live in Vancouver area → transfer to Legacy Salmon Creek*
  - *Of the 14 patients, 3 patients close to discharge*
- Would use PANDA/KIDS team for level III patients
- Could use standard ambulance accompanied by NICU RN/NNP/MD for the remainder

# Thursday 9/10/2020

- Hospital continues in level 1 evacuation zone
- Multiple meetings with Kaiser and NWP incident command and leadership
  - *Discussed moving higher acuity patients that have high level of transport needs first*
  - *Reviewed the census of the entire hospital to designate patients*
    - Red – Needs EMS/specialized transport
    - Yellow – Can be moved in wheelchair
    - Green – Can walk on their own

# Thursday 9/10/2020

- Further discussions of the potential of opening a level II NICU at KWMC
  - *We would bring the "staff"*
  - *We would bring the "stuff"*
  - *They would provide the "space"*
- On further investigation would have to get OHA emergency approval to "open" a level II NICU at KWMC
  - *OHA willing to grant that approval if space limited at other NICUs in the region*

# Thursday 9/10/20 - 2000

- Decision made to begin transferring high acuity patients from KSMC to KWMC and other area hospitals
- Approximately 40 available NICU beds across the NICUs in the region, so elected to not transfer patients to KWMC to create a temporary Level II
- Worked with James Heilman (medical director for the OHSU transfer center) to see what transport teams were available
- Also worked with Carl Eriksson (OHSU PICU physician that works with large-scale emergencies) to evenly distribute patients across the NICUs in the region

# Thursday 9/10/2020 - 2045

- Census was 14
  - *4 level III patients*
  - *10 level II patients*
  - *Of the 14 patients, 3 patients nearing discharge*
- We had 2 PANDA teams and 3 KIDS teams available for transport
- We had 2 Neonatologist to tag-team on arranging the transfers

# 9/10/2020 - 9/11/2020

- Baby G2 (level III) to Randall at 2140
- Baby G1 (level III) to Randall at 2235
- Baby P (level III) to OHSU at 2320
- Baby K (level II) to Salmon Creek at 2345
- Baby S (level III) to PSVMC at 0035
- Baby M (level II) to Salmon Creek at 0130
- Baby U (level II) to Randall at 0205
- Baby U (level II) to OHSU at 0220
- Baby A (level II) to Tuality at 0315
- Baby C (level II) to PSVMC at 0345
- Baby S (level II) to PeaceHealth at 0410

# When to Repatriate?

- When the fires were partially contained and the winds had switched
- Air Quality improved at the hospital
- Began repatriation the evening of 9/15

# FALL FIRE EVACUATION

## CHILD AND ADOLESCENT PSYCHIATRIC UNIT (CAPU)

Jolie Manning, MSN-Ed, BSN, RN
Associate Nurse Manager
Child and Adolescent Psychiatric Unit, Providence Willamette Falls Medical Center

# LOGISTICS

- Had 11 patients on the unit at the time of serious evacuation planning (had been discharging as able and not admitting)
- 4 children and 7 adolescents
- Several staff had homes in level 2 Get Ready or level 3 Go fire evacuation areas and were unavailable to come in to work

# PLANNING

- Management team met with physicians to determine status of patients re: ability to discharge home
- Senior Program Manager (SPM) contacted residential programs to inquire about potential space we could use
- Associate Nurse Manager (ANM) worked with House Supervisor to contact PSVMC Peds unit to determine possibility of transferring patients to the unit

# PLANNING

- Determination made that 1 child and 3 adolescents were stable enough to discharge home
- One adolescent patient was transferred to the Pediatric unit at PSVMC-was already dealing with a secondary eating disorder and there had been discussion about transfer
- Albertina Kerr had a 6 bed unit available for use- as long as the CAPU staffed the unit

# IMPLEMENTATION

- Physicians wrote discharge orders for the patients that were stable enough to discharge home
- Associate Nurse Manager met with charge RN to determine plan for transferring patients
- One adolescent patient was transferred via ambulance to PSVMC Pediatric unit
- Available staff were identified and the Associate Nurse Manager developed a schedule for staffing at Albertina Kerr
- The first 3 patients were transferred to Albertina Kerr one at a time via secure transport

# IMPLEMENTATION

- The charge RN sent a couple of staff ahead to Albertina Kerr to meet the first patient arriving, and then sent more staff as each patient was transferred
- The second 3 patients were transferred one at a time the next morning via secure transport
- The ANM and the SPM worked with the staff and charge RN to develop a list of supplies needing to be transported
- The ANM worked with the pharmacy to get “to go” medications to take to Albertina Kerr

# IMPLEMENTATION

- Determination made that two Workstations on Wheels (WOW's were needed for transport to support patient charting and medication administration
- The list of supplies was daunting-
  - *Bed linens*
  - *Patient's clothing and some belongings*
  - *Patient Medications*
  - *Snacks and beverages*
  - *Cups, plates, eating utensils (Albertina Kerr did provide meals)*
  - *Patient's hard charts*
  - *Restraint and Seclusion paperwork*
  - *Etc.*

# RETURN

- The Army National Guard assisted in transporting patients back to the CAPU so all 6 were able to go at the same time
- ARNG also assisted in transporting supplies and computers back to PWFMC
- The ANM and the SPM transported the supplies that were left

# LESSONS LEARNED

- Things that went well:
  - *The CAPU team pulled together in a time of uncertainty and fear*
  - *The SPM had contact information for the residential facilities readily available*
  - *The secure transport companies were flexible and highly responsive to the needs of the unit to get patients transported out (not always the case)*
  - *Staff readily accepted additional responsibilities and extra hours when their peers were unavailable due to dealing with their own crises*
  - *The SPM and the ANM picked up half shifts to assist with staffing*

# LESSONS LEARNED

- Things that can be improved
  - *Development of a list of items that are needed in the event of future evacuations (the SPM and ANM made multiple trips between PWFMC and Albertina Kerr as supply need were identified)*
  - *Planning for staff shortages in these events as many staff live locally and were impacted directly by the fires (including the Nurse Manager who was unavailable for the entire evacuation)*
  - *Staying consistent with management/physicians/discharge planner knowing where each patient is in terms of discharge for disposition plan*
  - *Recognition that not everything is going to go perfectly, but all we can do is do our best to keep our patients safe.*

# LESSONS FROM PWF ED FIRE EVACUATION

Karen Jeffrey-Markowski, BSN, CEN
Nurse Manager of Clinical Operations, Emergency Department
Providence Willamette Falls Medical Center

# Background

- September 2020 wildfires threatened PWF service area.

- PWF Hospital entered Level 2 “Get Set” evacuation warning on September 10, 2020
  - *Told conditions can change suddenly and to prepare for sudden evacuation. Consider leaving the area now.*

- Command Center already in place for COVID- repurposed for wildfire evacuation response
  - *Plans to evacuate to minimum patient levels activated*

# Pediatric BH patient

- Teenage pediatric BH patient boarding in the ED in DHS custody
- Pt unable to evacuate to subacute facilities due to past behavior issues
- Limited hotel availability/DHS worker availability

# Concerns

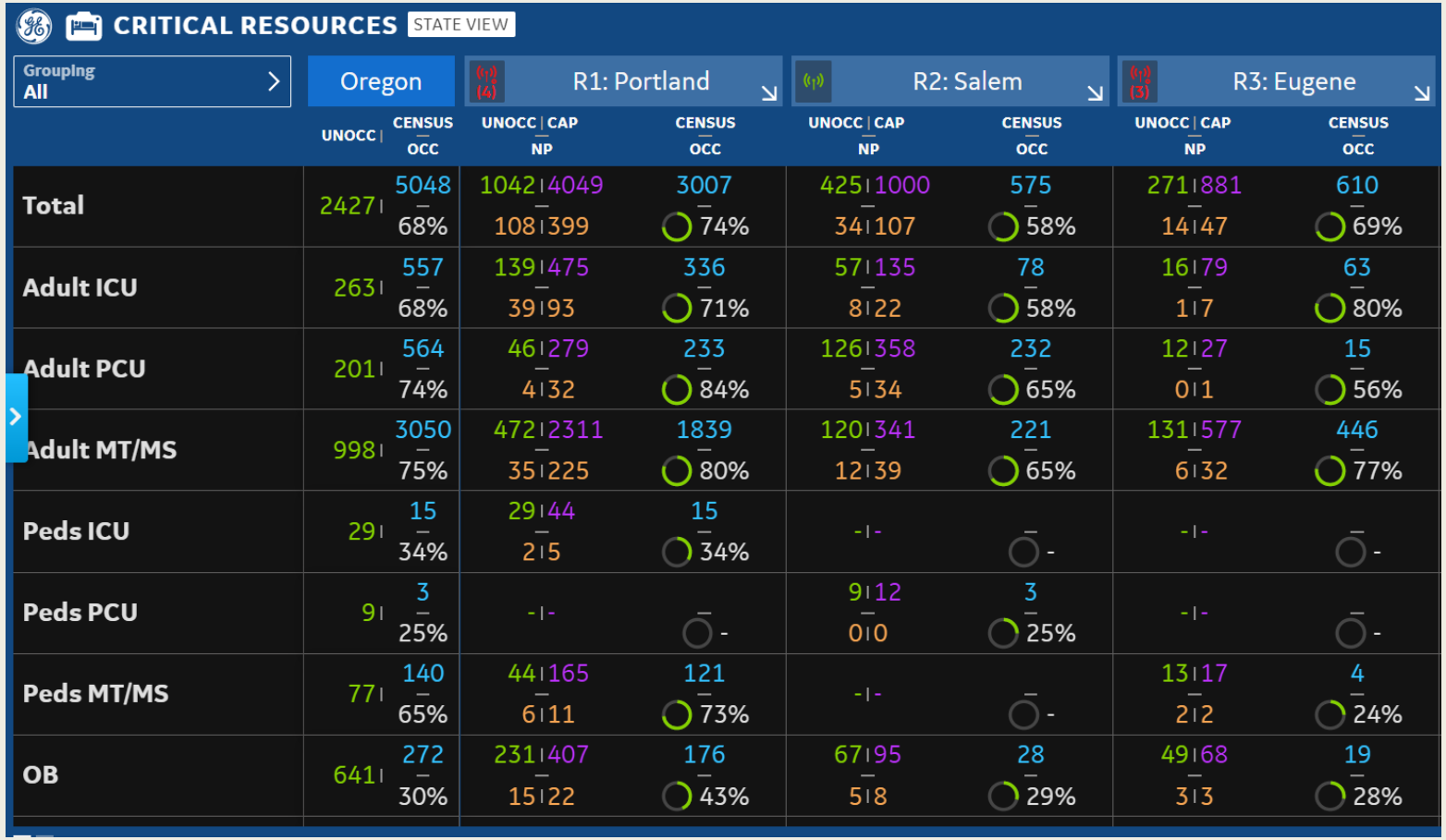
- How to safely transfer this vulnerable patient
- Who will advocate for them
- How do we ensure correct hand off of care?
- Post-evacuation plan?

# RESOURCES TO SUPPORT POTENTIALLY EVACUATING HOSPITALS

Carl Eriksson, MD, MPH

# Awareness of capacity and capabilities

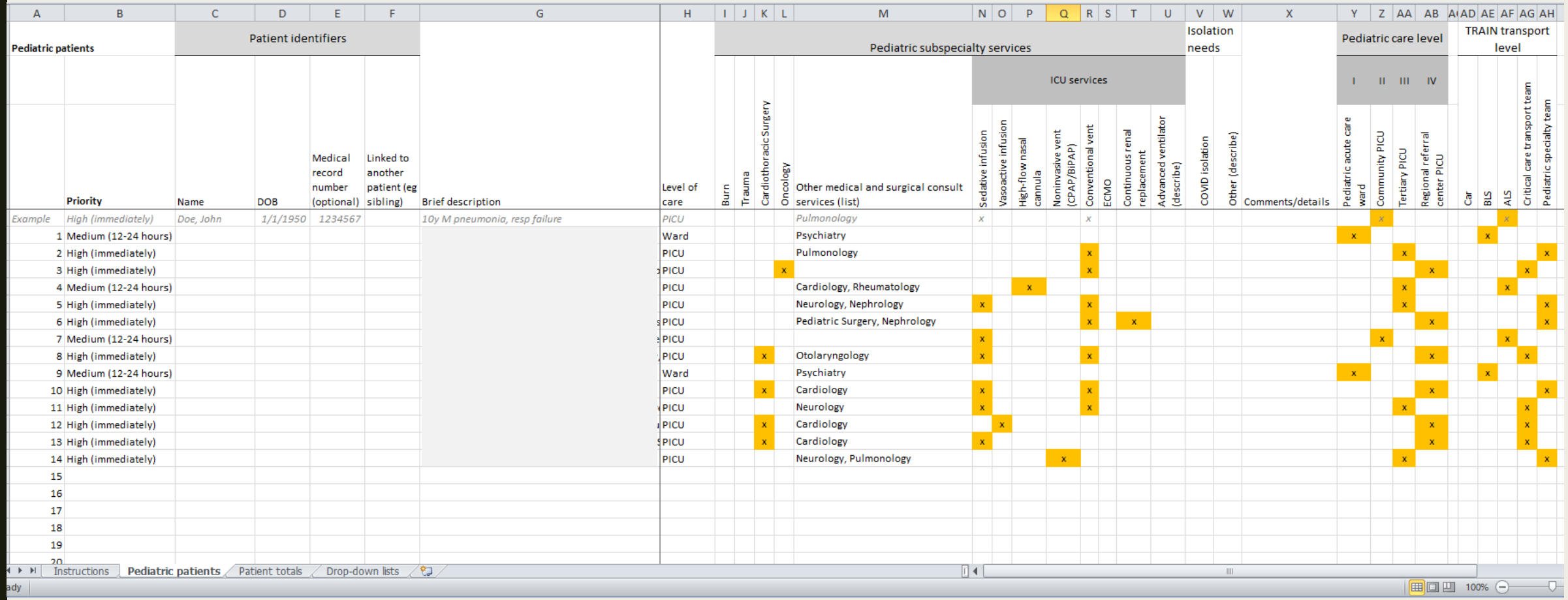
- HOSCAP
- Oregon Critical Resources tile



# Organization of evacuation

- Chain of communication (go down the list as you need more support)
  - Evacuating center: Manages evacuation initially, determines need for additional support
  - Regional Resource Hospital
  - State network of RRHs (with support from OHA Health Security, Preparedness, and Response)
- Potential reasons to enlist additional support
  - Help matching patient needs to capability and capacity
    - *of receiving centers*
    - *of transport agencies (POV vs BLS vs ALS vs CCTT, ground vs air, etc.)*

# Evacuation worksheet



| Pediatric patients | | Patient identifiers | | | | | Pediatric subspecialty services | | | | | | | | | | | | | | | | | | Isolation needs | | | Pediatric care level | | | | TRAIN transport level | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | ICU services | | | | | | | | | | | | | | | | I | II | III | IV | | | | | |
| | Priority | Name | DOB | Medical record number (optional) | Linked to another patient (eg sibling) | Brief description | Level of care | Burn | Trauma | Cardiothoracic Surgery | Oncology | Other medical and surgical consult services (list) | Sedative infusion | Vasoactive infusion | High-flow nasal cannula | Noninvasive vent (CPAP/BIPAP) | Conventional vent | ECMO | Continuous renal replacement | Advanced ventilator (describe) | COVID isolation | Other (describe) | Comments/details | Pediatric acute care ward | Community PICU | Tertiary PICU | Regional referral center PICU | Car | BLS | ALS | Critical care transport team | Pediatric specialty team |
| *Example* | *High (immediately)* | *Doe, John* | *1/1/1950* | *1234567* | | *10y M pneumonia, resp failure* | *PICU* | | | | | *Pulmonology* | *x* | | | | *x* | | | | | | | | *x* | | | | | *x* | | | | |
| 1 | Medium (12-24 hours) | | | | | | Ward | | | | | Psychiatry | | | | | | | | | | | | x | | | | | x | | | | |
| 2 | High (immediately) | | | | | | PICU | | | | | Pulmonology | | | | | x | | | | | | | | | x | | | | | | x | |
| 3 | High (immediately) | | | | | | PICU | | | | x | | | | | | x | | | | | | | | | | x | | | | x | | |
| 4 | Medium (12-24 hours) | | | | | | PICU | | | | | Cardiology, Rheumatology | | | x | | | | | | | | | | | x | | | | x | | | |
| 5 | High (immediately) | | | | | | PICU | | | | | Neurology, Nephrology | x | | | | x | | | | | | | | | x | | | | | | x | |
| 6 | High (immediately) | | | | | | PICU | | | | | Pediatric Surgery, Nephrology | | | | | x | | x | | | | | | | | x | | | | | | x | |
| 7 | Medium (12-24 hours) | | | | | | PICU | | | | | | x | | | | | | | | | | | | x | | | | x | | | | |
| 8 | High (immediately) | | | | | | PICU | | | x | | Otolaryngology | x | | | | x | | | | | | | | | | x | | | | x | | |
| 9 | Medium (12-24 hours) | | | | | | Ward | | | | | Psychiatry | | | | | | | | | | | | x | | | | | x | | | | |
| 10 | High (immediately) | | | | | | PICU | | | x | | Cardiology | x | | | | x | | | | | | | | | | x | | | | | x | |
| 11 | High (immediately) | | | | | | PICU | | | | | Neurology | x | | | | x | | | | | | | | | x | | | | x | | | |
| 12 | High (immediately) | | | | | | PICU | | | x | | Cardiology | | x | | | | | | | | | | | | | x | | | x | | | |
| 13 | High (immediately) | | | | | | PICU | | | x | | Cardiology | x | | | | | | | | | | | | | | x | | | x | | | |
| 14 | High (immediately) | | | | | | PICU | | | | | Neurology, Pulmonology | | | | x | | | | | | | | | | x | | | | | | x | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Instructions | Pediatric patients | Patient totals | Drop-down lists

Ready

100%

# Evacuation worksheet

**Number of patients by category**

| | | | Priority | | | Subspecialty services | | | | Pediatric care level | | | | TRAIN transport level | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | High | Medium | Low | Burn | Trauma | CT Surgery | Oncology | Ward | Community PICU | Tertiary PICU | Regional referral PICU | Car | BLS | ALS | Critical Care Transport | Pediatric Specialty Team |
| **Level of care** | PICU | 12 | 10 | 2 | 0 | 0 | 0 | 4 | 1 | 0 | 1 | 5 | 6 | 0 | 0 | 2 | 5 | 5 |
| | Ward | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| | **Total** | **14** | **10** | **4** | **0** | **0** | **0** | **4** | **1** | **2** | **1** | **5** | **6** | **0** | **2** | **2** | **5** | **5** |

Instructions | Pediatric patients | **Patient totals** | Drop-down lists

# References and resources

- ASPR TRACIE
- Evacuation worksheet

# QUESTIONS?

# Thank you!

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