Location, Location, Location! Pediatrics

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Disclosures

- Nothing to disclose

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Learning Objectives

- Identify unique challenges to infection control in each setting

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Goals of the Presentation

- Describe unique aspects of caring for hospitalized children during outbreaks
- Discuss challenges to providing family-centered care in the context of high-consequence pathogens
- Identify practical tips for caring for children in isolation

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Children in Emergencies

- Children make up 23% of the US population
- In 2012, 15.7% of hospital stays were for patients 0-17 years of age
- Pediatric hospitals account for 5% of US hospitals
  - Varied geographic distribution
- Easy to overwhelm capacity quickly with an influx of children during an emergency

Hinton CF, et al. *MMWR Morb Mortal Wkly Rep* 2015;64:972-4;
Weiss AJ, et al. Statistical Brief #180. 2014. www.hcup-us.ahrq.gov/reports/statbriefs/sb180-Hospitalizations-United-States-2012.pdf.

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Unique Needs and Challenges

- Parents or guardians
- Other family members (eg, siblings)
- Family-centered care
- Specialized equipment and med dosing
- Developmental challenges
  - Hand hygiene and cough etiquette
  - Isolation, containment, restraint
- Fear and anxiety

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Pediatric Aspects of Hospital Preparedness

- Pediatric-specific HICS roles
- Pediatric-specific disaster surge formulary
- Pediatric principles of surge capacity
- Pediatric decontamination strategies
- Pediatric aspects of sheltering in place and evacuation

Monteiro S, et al. *Clin Pediatr Emerg Med.* 2009;10:216-28.

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Pediatric-Specific HICS Roles

HICS Position	Rationale for Pediatric-Specific Role
Medical technology specialist-pediatricians	Works within the incident command group to identify potential pediatric care–related concerns and strategies
Family care unit	Helps coordinate issues of reunification and psychosocial issues of family (not victims)
Supply unit	Concerned with obtaining and distributing pediatric-specific equipment
Inpatient unit	Responsible for overall inpatient pediatric care (includes pediatric intensive care unit level care)
Outpatient unit	Responsible for overall outpatient pediatric care
Casualty care unit	Responsible for overall emergency department pediatric care
Mental health unit	Responsible for pediatric victim psychosocial and behavioral response
Food service unit	Responsible for nutritional needs of children
Victim decontamination unit	Responsible for providing age-appropriate communication and assistance while pediatric patients are undergoing decontamination
Access control unit	Responsible for security of pediatric patients (injured and well) and enforcing disaster credentialing identification/reunification policies as they relate to access control

Monteiro S, et al. *Clin Pediatr Emerg Med.* 2009;10:216-28.

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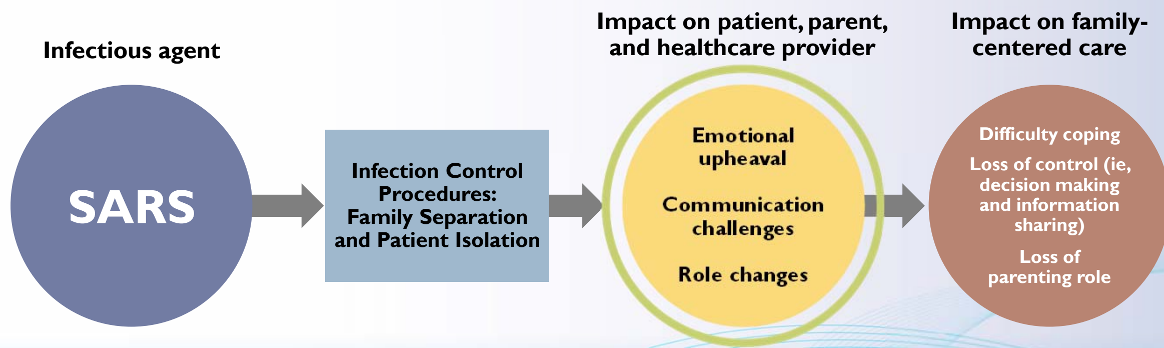
Family-Centered Care and Infections

The impact of SARS and its relevance to family-centered care



Koller DF, et al. *Qual Health Res.* 2006;16:47-60.

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I almost cried to a point because it is so sad and you would see them as you walked by the door. You know, walk by the hallway and you could hear them. We have monitors down our hallways because of the isolation and everything is closed and you could hear, hear them crying. That was… the worst.

- Healthcare provider

We went in looking like aliens to them and sure, they didn't recognize us and there's a lot of times when you try to smile from behind the mask and you realize they can't see your smile. 'Cause you're used to that 'cause it's a comfort for children. That was one of the hardest things in terms of communication.

- Healthcare provider

But being separated from them, you know, you almost felt like you lost them. You feel hopeless…It's a hard feeling to be pulled away from them when you realize that you're not seeing them in a few days. And it's not your choice.

- Parent

Koller DF, et al. *Qual Health Res.* 2006;16:47-60.

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CLINICAL REPORT Guidance for the Clinician in Rendering Pediatric Care

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

Parental Presence During Treatment of Ebola or Other Highly Consequential Infection

H. Dele Davies, MD, MS, MHCM, FAAP, Carrie L. Byington, MD, FAAP, COMMITTEE ON INFECTIOUS DISEASES

Davies HD, et al. *Pediatrics*. 2016;138:e20161891.

The Challenge

"It was clear that there was not a single approach that was uniformly viewed as creating the greatest safety for healthcare providers, while also fully taking into consideration the ongoing social and emotional needs of the child and his or her parents or legal guardians."

Davies HD, et al. *Pediatrics*. 2016;138:e20161891.

Caregiver Presence During Inpatient Care: Things to Consider

- Child's developmental level, acuity, ability to follow directions and cooperate
- Available hospital resources
  - PPE and training for caregiver
  - Staffing to observe caregiver
  - Videoconferencing and other technology
- Caregiver health status (eg, pregnancy)
- Impact for other children in family
- Risk to healthcare providers and other patients

Davies HD, et al. *Pediatrics*. 2016;138:e20161891.

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Options for Implementation

Option 1	Option 2*	Option 3*
Caregiver remains in separate room	Caregiver remains at bedside	Caregiver primarily in separate room but joins child at bedside intermittently
Videoconferencing to interact with child	Requires proficiency in PPE	Requires proficiency in PPE
	Requires staffing for observation of donning/doffing	Requires staffing for observation of donning/doffing
		Requires safe method of movement within facility

*See next slide for caveats to options 2 and 3

Davies HD, et al. *Pediatrics*. 2016;138:e20161891.

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Caveats if Caregiver Is Present

- Only one caregiver should be designated for bedside presence
- **Informed consent about potential risks must be obtained and documented**
- Must agree to comply with public health guidance for monitoring and movement of exposed individuals
- **Must agree to comply with hospital personnel at all times (including leaving bedside)**
- Visits should be scheduled and controlled
  - Screening for symptoms on arrival
  - Daily instruction on PPE and hand hygiene
- **Must be trained in PPE donning and doffing and observed/assisted during process**
- Must wear PPE before entering room and during all contact with child
- Should limit exposure to blood and body fluid at the bedside
- Must agree to follow all infection-control protocols
- **Movement within facility should be restricted**
- Must agree to any additional guidelines from hospital or public health
- Must agree to strict confidentiality (no press, social media, etc.)
- **If caregiver develops symptoms, must be prepared to provide care or transfer**

Davies HD, et al. *Pediatrics*. 2016;138:e20161891.

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What Would Really Happen?

Hallway

Healthcare provider

Ebola treatment room

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Parental Presence at the Bedside of a Child With Suspected Ebola: An Expert Discussion

Hinton CF, et al. *Clin Pediatr Emerg Med.* 2016;17:81-6.

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Issues to Consider

Potential PRO:

- Parent may provide **psychosocial comfort and reassurance** to child
  - May enable **more effective nursing care**
- Forcible separation may cause high level of stress for family and child
- In absence of caregiver, care may be perceived differently by family
  - Presence may **lower risk of legal liability** for staff and facility
- Allowing presence demonstrates that facility values involvement in child's care
- If caregiver agrees to procedures and accepts risk, **is denying access morally acceptable**?

Potential CON:

- Close contact may **increase the risk of Ebola to caregiver**
- Potential **increased risk for healthcare personnel**, family, and community
- Caregiver presence **may interfere with the care of the patient** in an emergency
- Caregiver time away from family may add stress to family unit
- Potential emotional response from child upon caregiver departure after wearing PPE for multiple hours
- **Could create hysteria** among other patients and families
- **Who assumes responsibility** for the risk if the caregiver becomes infected in the facility?

Hinton CF, et al. *Clin Pediatr Emerg Med.* 2016;17:81-6.

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Practical Considerations

- PPE is complex and requires repeated trainings to develop competency
- Assisting inexperienced person with doffing increases the risk for HCWs
- Cannot wear enhanced PPE 24 hours/day for multiple days
  - Showering, bathroom use problematic
- Distractions for HCWs increases risk
- Extra people are a safety concern given limited size of treatment area
- Potential for contamination of clean zones in facility
- How can effective PPE education and instruction be ensured for families requiring interpreter services?
- Should PPE be allocated to family members when supply is limited?

Hinton CF, et al. *Clin Pediatr Emerg Med*. 2016;17:81-6.; Mehrotra P, et al. *JAMA Pediatr*. 2015;169:985-6.

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Viewpoint

Family-Centered Care and High-Consequence Pathogens: Thinking Outside the Room

Family-centered care

Safety

"Temporary physical separation of the infected child from parents is the most effective option for safe care delivery."

Mehrotra P, et al. *JAMA Pediatr*. 2015;169:985-6.

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Practical Tips: Managing Children in Isolation

- Involve the patient in discussions
  - Explain reasons for your chosen approach
- Provide information to parents
  - Dedicated family liaison role
- Use communication technology
  - Phone
  - Secure video and audio conferencing
- Work collaboratively
  - Child life, social work, ethics team, chaplains

Koller DF, et al. *Qual Health Res.* 2006;16:47-60.

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Helping Children Deal With Disasters

Listen to them	Try to make them feel safe
Ask them what they know or have heard	Let them know that many people are working hard to take care of hurt people and keep us safe
Ask them how they're feeling	Try to keep to their regular routines
Let them know you understand their feelings	
Don't laugh at their fears, even if they seem silly	
Let them ask questions; answer briefly and honestly	
It's OK to answer "I don't know"	

Adapted from Bellvue Child Life Department: https://www1.nyc.gov/assets/doh/downloads/pdf/bhpp/hepp-peds-childrenindisasters-010709.pdf.

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Thank You!

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Additional Resources

- Middle East Respiratory Syndrome (MERS): Resources for Preparedness. Centers for Disease Control and Prevention. www.cdc.gov/coronavirus/mers/preparedness/resources-preparedness.html
- Jefferson T, Foxlee R, Del Mar C, et al. Physical interventions to interrupt or reduce the spread of respiratory viruses: systematic review. *BMJ*. 2008;336(7635):77-80. www.ncbi.nlm.nih.gov/pmc/articles/PMC2190272/

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