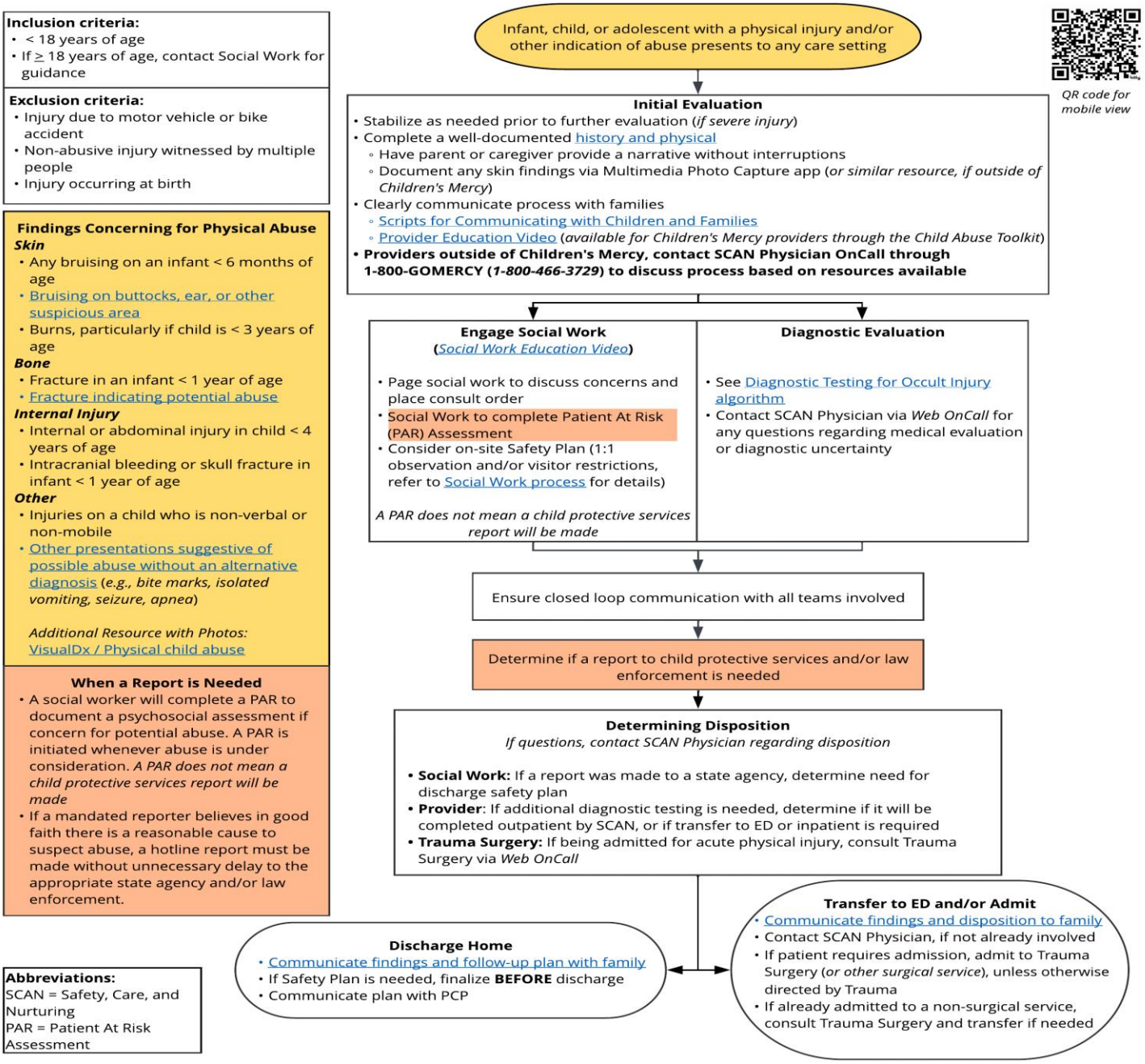
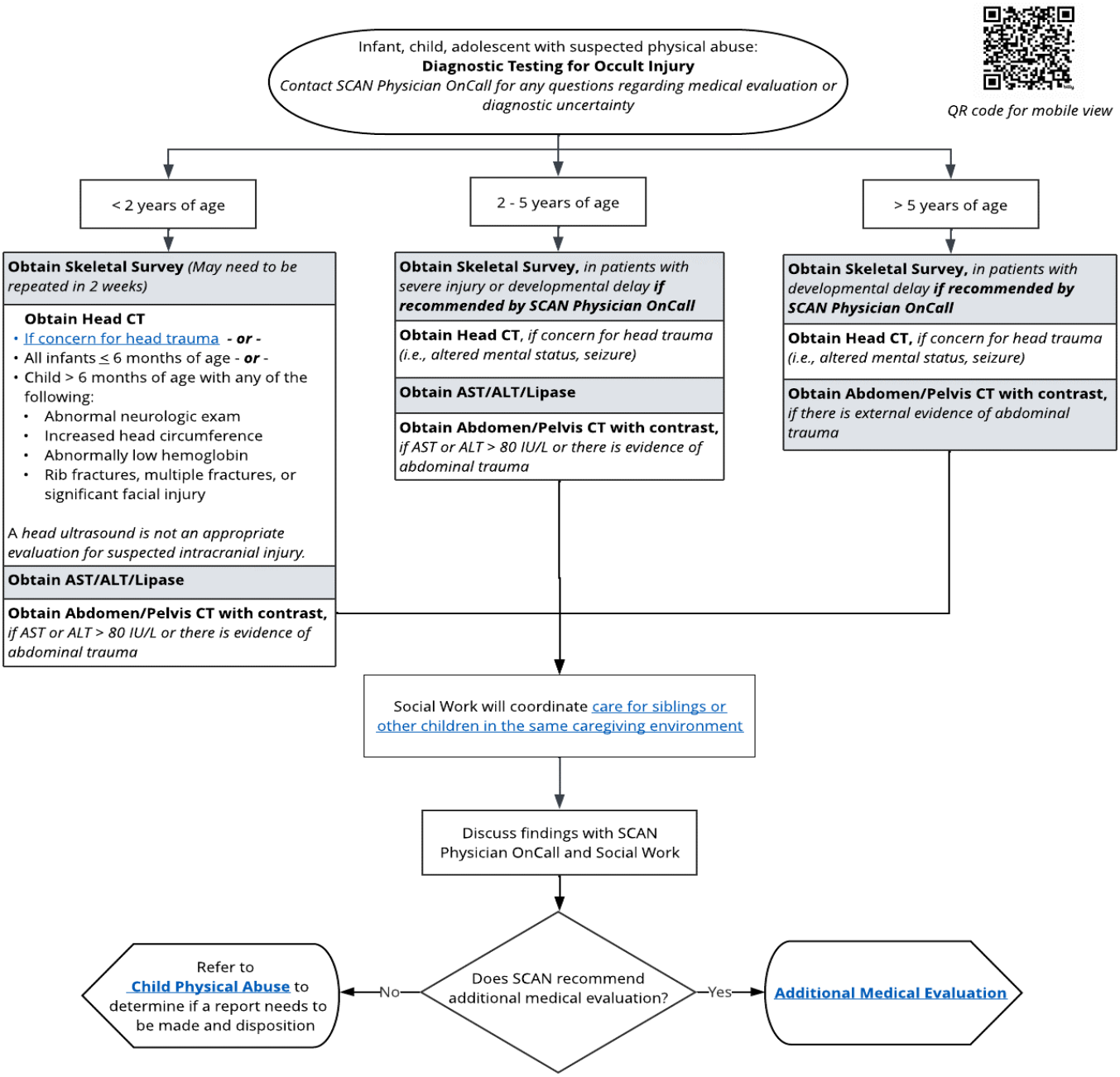
Child Physical Abuse
Clinical Pathway Synopsis

Child Physical Abuse Algorithm



** These clinical pathways do not establish a standard of care to be followed in every case. It is recognized that each case is different, and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time. It is impossible to anticipate all possible situations that may exist and to prepare a clinical pathway for each. Accordingly, these clinical pathways should guide care with the understanding that departures from them may be required at times.*

Child Physical Abuse: Diagnostic Testing for Occult Injury Algorithm



Abbreviations:
SCAN- Safety, Care, and Nurturing

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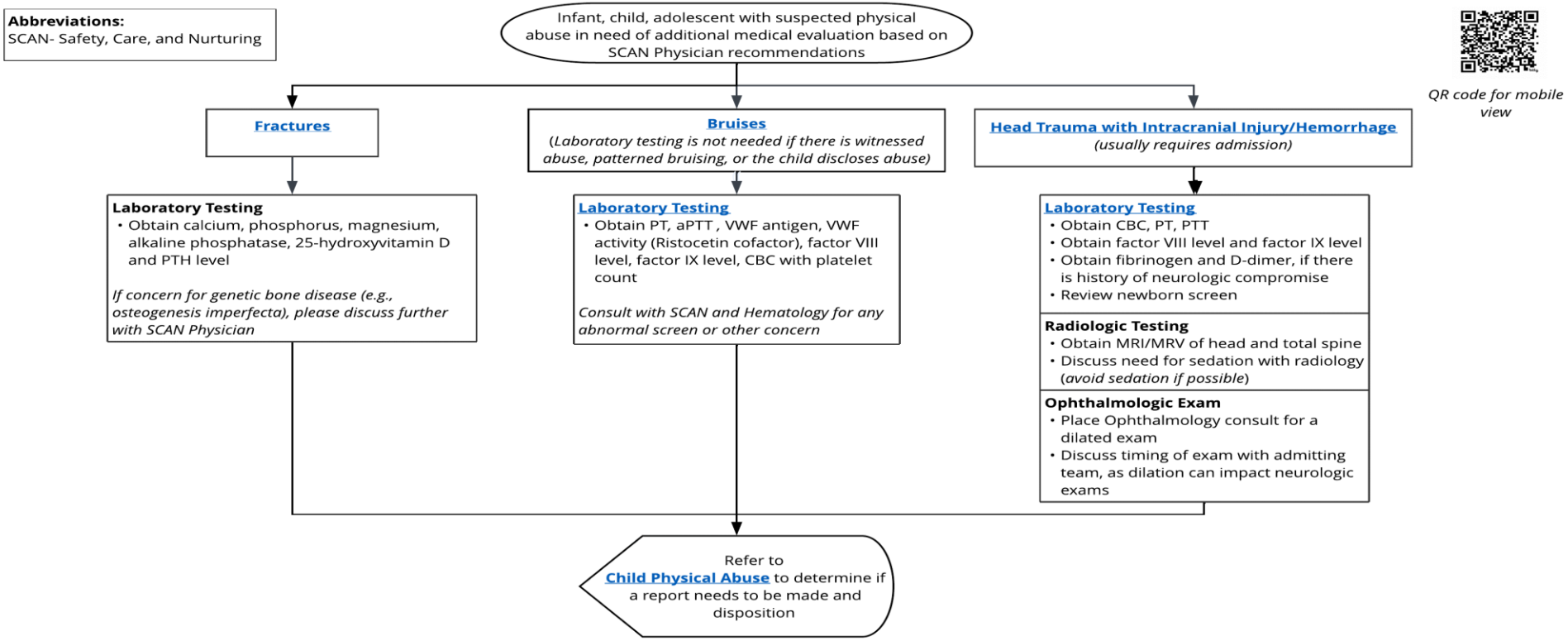
Child Physical Abuse: Additional Medical Evaluation Algorithm



References

Anderst, J., Carpenter, S. L., Abshire, T. C., Killough, E., the American Academy of Pediatrics Section on Hematology/Oncology, the American Society of Pediatric Hematology/Oncology, & the American Academy of Pediatrics Council on Child Abuse and Neglect. (2022). Evaluation for bleeding disorders in suspected child abuse. *Pediatrics, 150*(4), e2022059276. https://doi.org/10.1542/peds.2022-059276

Christian, C. W., & the Committee on Child Abuse and Neglect, American Academy of Pediatrics. (2015). The evaluation and treatment of suspected child physical abuse. *Pediatrics, 135*(5), e1337-e1354. https://doi.org/10.1542/peds.2015-0356

Narang, S. K., Fingarson, A., Lukefahr, J., & the American Academy of Pediatrics Council on Child Abuse and Neglect (2020). Abusive Head Trauma in Infants and Children, *Pediatrics, 145*(4), e20200203. https://doi.org/10.1542/peds.2020-0203

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Objective of Clinical Pathway

To provide care standards for an infant, child, or adolescent with a physical injury with concern for abuse presenting to any care setting. The Child Physical Abuse Clinical Pathway guides evaluation and the timely engagement of Social Work and the Safety Care and Nurturing (SCAN) Physician OnCall to assist in decision-making or address diagnostic uncertainty.

Background/Epidemiology

While definitions can vary amongst states and organizations, child physical abuse is generally defined as any physical injury to a child or adolescent less than 18 years of age that is incurred using intentional physical force (Centers for Disease Control and Prevention, 2022). Based on the most recent published data, the national rate for child abuse and neglect is 7.7 cases per every 1,000 children, where 17% can be attributed to physical abuse (U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, 2024). According to the U.S. Department of Health & Human Services (2024), the number is feared to be an underestimate, as it is believed that many cases go unreported.

Healthcare providers play an essential role in identifying and supporting children and families when physical abuse is suspected (Blangis et al., 2021; Christian et al., 2015; Narang et al., 2020; World Health Organization, 2022). The diagnosis of child physical abuse is complex, as findings can be subtle, and the children may be unable or too frightened to disclose the physical abuse (Anderst et al., 2022; Blangis et al., 2021; Carpenter et al., 2022; Christian et al., 2015; Narang et al., 2020). Findings may also reflect other underlying causes of injury, such as bleeding or bone disorders (Anderst et al., 2022; Blangis et al., 2021; Carpenter et al., 2022; Christian et al., 2015; Narang et al., 2020). Furthermore, provider training encourages information to be sought from the parent or caregiver when evaluating and treating a minor, which can make diagnosing difficult should information be withheld or inaccurate (Christian et al., 2015). The Child Physical Abuse Committee aims to develop a clinical pathway to guide providers and offer resources in the evaluation of occult and sentinel injuries to promote early clinical identification of child physical abuse and intervention and support for children and their families.

Target Users

- Physicians (Emergency Medicine, Urgent Care, Ambulatory Clinics, Hospital Medicine, Fellows, Resident Physicians)
- Nurse Practitioners
- Nurses
- Social Work

Target Population

Inclusion Criteria

- Individuals < 18 years of age
- If ≥ 18 years of age, contact Social Work for guidance

Exclusion Criteria

- Injury due to a motor vehicle or bike accident
- Non-abusive injury witnessed by multiple people
- Injury occurring at birth

AGREE II

Two American Academy of Pediatrics (AAP) national guidelines provided guidance to the Child Physical Abuse Clinical Pathway Committee (Christian et al., 2015; Narang et al., 2020). See Tables 1 and 2 for the AGREE II.

Table 1

AGREE II Summary for The Evaluation of Suspected Child Physical Abuse Clinical Report (Christian et al., 2015)

Domain	Percent Agreement	Percent Justification^
Scope and purpose	86%	The aim of the guideline, the clinical questions posed, and target populations **were** identified.
Stakeholder involvement	82%	The guideline **was developed** by the appropriate stakeholders and represents the views of its intended users.

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Rigor of development	41%	The guideline developers **did not** provide how the evidence was gathered and synthesized, how the recommendations were formulated nor how the guidelines will be updated.
Clarity and presentation	94%	The guideline recommendations **are** clear, unambiguous, and easily identified; in addition, different management options are presented
Applicability	57%	Barriers and facilitators to implementation and strategies to improve utilization **were addressed** in the guideline. The guideline **did not** address resource costs associated with implementation.
Editorial independence	71%	The recommendations **were not** biased with competing interests.
Overall guideline assessment	72%	
See Practice Recommendations		

Note: Four EBP Scholars completed the AGREE II on this guideline.
^Percentage justification is an interpretation based on the Children's Mercy EBP Department standards.

Table 2
AGREE II Summary for the Abusive Head Trauma in Infants and Children Policy Statement (Narang et al., 2020)

Domain	Percent Agreement	Percent Justification^
Scope and purpose	82%	The aim of the guideline, the clinical questions posed, and target populations **were** identified.
Stakeholder involvement	79%	The guideline **was developed** by the appropriate stakeholders. and represents the views of its intended users.
Rigor of development	34%	The guideline developers **did not** provide how the evidence was gathered and synthesized, how the recommendations were formulated nor how the guidelines will be updated.
Clarity and presentation	82%	The guideline recommendations **are** clear, unambiguous, and easily identified. In addition, different management options are presented.
Applicability	21%	The guideline **did not** address implementation barriers and facilitators, utilization strategies, nor resource costs associated with implementation.
Editorial independence	92%	The recommendations **were not** biased with competing interests.
Overall guideline assessment	65%	
See Practice Recommendations		

Note: Four EBP Scholars completed the AGREE II on this guideline.
^Percentage justification is an interpretation based on the Children's Mercy EBP Department standards.

Practice Recommendations

Please refer to the American Academy of Pediatrics (Christian et al., 2015; Narang et al., 2020) Clinical Practice Guidelines for evaluation and intervention recommendations.

Additional Questions Posed by the Clinical Pathway Committee

No additional clinical questions beyond those addressed in the AAP Guidelines were posed for formal literature review.

Updates from Previous Versions of the Clinical Pathway

- The Child Physical Abuse Clinical Pathway is a newly developed evidence-based pathway with no previous version for comparison.

Recommendation Specific for Children's Mercy

There were no deviations from the AAP Guidelines regarding practice recommendations, but logistical processes specific to Children's Mercy Kansas City were added.

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- Timing regarding when to engage social work and contact the SCAN Physician OnCall
- Processes for determining discharge disposition

Measures
- Use of the Child Physical Abuse Clinical Pathway

Value Implications
- Decreased risk of missed diagnosis of child physical abuse
- Improved standardization of diagnostic work-up based on patient age and presentation
- Improved safety following a concern for child physical abuse (i.e., disposition; safety plan)
- Increased equity by decreasing unwarranted variation in care

Organizational Barriers and Facilitators
Potential Barriers
- Challenges of identifying warning signs of child physical abuse in some cases
- Challenges with closing the communication loop among providers, nursing staff, social work, and patient's families.

Potential Facilitators
- Collaborative engagement across the continuum of care settings during clinical pathway development
- Multidisciplinary contribution to pathway development
- Collaboration with Human Factors to improve pathway usability
- Anticipated high rate of use of the clinical pathway
- Standardized order set for Emergency Department and inpatient settings

Diversity/Equity/Inclusion

Our aim is to provide equitable care. These issues were discussed with the Committee, reviewed in the literature, and discussed prior to making any practice recommendations.

Power Plans
- EDP Physical Abuse
- Inpatient Physical Abuse

Associated Policies
- Abuse and Neglect

Education Materials
- Provider Education for Suspected Child Physical Abuse (video)
  - Intended to be an audiovisual resource for providers to explain clinical findings and the evaluation process to children and families when child abuse is suspected
  - Available for Children's Mercy providers through the Child Abuse Toolkit
- Social Work Education for Suspected Child Physical Abuse (video)
  - Intended to be an audiovisual resource for social workers explaining the evaluation process when child abuse is suspected and how to communicate with children and families
  - Available for Children's Mercy social workers and providers through the Child Abuse Toolkit
- Scripts for Communicating with Families and Children When There are Abuse Concerns
  - A communication guide available for Children's Mercy providers through the Child Abuse Toolkit

Clinical Pathway Preparation

This pathway was prepared by the Evidence Based Practice (EBP) Department in collaboration with the Child Physical Abuse Clinical Pathway Committee composed of content experts at Children's Mercy Kansas City. If a conflict of interest is identified, the conflict will be disclosed next to the committee member's name.

Child Physical Abuse Clinical Pathway Committee Members and Representation
- Emily Killough, MD | SCAN Clinic, Division of Child Adversity and Resilience | Committee Chair

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- Danielle Horton, MD | SCAN Clinic, Division of Child Adversity and Resilience | Committee Member
- Erin Scott, DO | Pediatric Emergency Medicine | Committee Member
- Holly Austin, MD, FAAP | Urgent Care Center | Committee Member
- David Juang, MD | Surgery | Committee Member
- Hank Puls, MD | Hospital Medicine| Committee Member
- Ryan Northup, MD | General Academic Pediatrics | Committee Member
- Danny Dooling, MD | Medicine-Pediatrics Resident | Committee Member
- Michelle Camerer, LSCSW, LCSW | Clinical Social Work | Committee Member
- Danica Harris, LCSW, LSCSW | Clinical Social Work | Committee Member
- Roneika Moore, DNP, RN | Emergency Department | Committee Member
- Sarah Fouquet, PhD | Quality, Safety with Human Factors | Committee Member
- Kerri Kuntz, MSN, CPPS, CPHQ, RNC-OB, C-EFM | Quality and Safety | Committee Member
- DeeJo Miller, BA | Patient and Family Engagement | Committee Member
- Kaylee Hurt, BS | Patient and Family Engagement | Committee Member
- Angie Williams, BSN, RN-BC, CPN | Clinical Practice and Quality | Committee Member
- Sarah Dierking, MSN, RN, CPHQ | Clinical Practice and Quality | Committee Member

Patient/Family Committee Member

- Melanie Traynham | Committee Member

EBP Committee Members

- Kathleen Berg, MD, FAAP | Hospitalist, Evidence Based Practice
- Kelli Ott, OTD, OTR/L | Evidence Based Practice

Clinical Pathway Development Funding

The development of this clinical pathway was underwritten by the following departments/divisions: SCAN Clinic, Pediatric Emergency Medicine, Urgent Care Center, Surgery, Hospital Medicine, General Academic Pediatrics, Clinical Social Work, Emergency Department, Quality and Safety, Patient and Family Engagement, Clinical Practice and Quality, and Evidence Based Practice

Conflict of Interest

The contributors to the Child Physical Abuse Clinical Pathway have no conflicts of interest to disclose related to the subject matter or materials discussed.

Approval Process

- This pathway was reviewed and approved by the Child Physical Abuse Clinical Pathway Committee, Content Expert Departments/Divisions, and the EBP Department, after which it was approved by the Medical Executive Committee.
- Pathways are reviewed and updated as necessary every three years within the EBP Department at CMKC. Content expert teams are involved with every review and update.

Review Requested

Department/Unit	Date Obtained
Safety Care and Nurturing Clinic	August 2024
Pediatric Emergency Medicine	August 2024
Urgent Care Center	August 2024
Surgery	August 2024
Hospital Medicine	August 2024
General Academic Pediatrics	August 2024
Clinical Social Work	August 2024
Clinical Practice and Quality	August 2024
Quality and Safety	August 2024
Patient and Family Engagement	August 2024
Evidence Based Practice	June 2024

Version History

Date	Comments
September 2024	Version one – (*developed Child Physical Abuse Clinical Pathway and synopsis; revised associated powerplans, created provider educational materials*)
December 2024	Linked *Head Trauma with Intracranial Injury/Hemorrhage* information on the Child Physical Abuse: Additional Medical Evaluation algorithm to the Suspected Abusive Head Trauma Clinical Pathway
January 2025	Adjusted age parameters for finding concerning for physical abuse regarding burns
March 2025	Modified Child Physical Abuse: Diagnostic Testing for Occult Injury algorithm regarding abdominal/pelvic CT

Date for Next Review

- September 2027

Implementation & Follow-Up

- Once approved, the pathway was presented to appropriate care teams and implemented. Care measurements will be assessed and shared with appropriate care teams to determine if changes need to occur.
- Order sets/power plans consistent with recommendations were created or updated for the emergency department and inpatient settings.
- The policies were reviewed. The policies detail the institutional processes for handling cases of possible child abuse or neglect and the obligations of a Mandated Reporter for reporting reasonable suspicions of abuse or neglect. The policies were not amended during the development of the Child Physical Abuse Clinical Pathway.
- Education was provided to all stakeholders:
  - Nursing units where the Child Physical Abuse Clinical Pathway is used
  - Department of Child Adversity and Resilience, Clinical Social Work, and Pediatric Surgery
  - Providers from Emergency Medicine, Urgent Care Center, Ambulatory Clinics, and Hospital Medicine
- Additional institution-wide announcements were made via email, the hospital website, and relevant huddles.
- Metrics will be assessed and shared with appropriate care teams to determine if changes need to occur.

Disclaimer

When evidence is lacking or inconclusive, options in care are provided in the supporting documents and the power plan(s) that accompany the clinical pathway.

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References

Abuse and Neglect, (2020, January), *CMH Patient Care Services Standards Manual.* Children's Mercy Hospital, Kansas City, Missouri

Anderst, J., Carpenter, S. L., Abshire, T. C., Killough, E., the American Academy of Pediatrics Section on Hematology/Oncology, the American Society of Pediatric Hematology/Oncology, & the American Academy of Pediatrics Council on Child Abuse and Neglect. (2022). Evaluation for bleeding disorders in suspected child abuse. *Pediatrics*, *150*(4), e2022059276. https://doi.org/10.1542/peds.2022-059276

Blangis, F., Allali, S., Cohen, J. F., Vabres, N., Adamsbaum, C., Rey-Salmon, C., Werner, A., Refes, Y., Adnot, P., Gras – Le Guen, C., Launay, E., Chalumeau, M., & the European Confederation of Primary Care Pediatricians Research Group. (2021). Variations in guidelines for diagnosis of child physical abuse in high-income countries: A systematic review. *The Journal of the American Medical Association, 4*(11), e2129068. https://doi.org/10.1001/jamanetworkopen.2021.29068

Carpenter, S. L., Abshire, T. C., Killough, E., Anderst, J., & the American Academy of Pediatrics Section on Hematology/Oncology, the American Society of Pediatric Hematology and Oncology, and the American Academy of Pediatrics Council on Child Abuse and Neglect. (2022). Evaluating for suspected child abuse: Conditions that predispose to bleeding. *Pediatrics*, *150*(4), e2022059277. https://doi.org/10.1542/peds.2022-059277

Centers for Disease Control and Prevention. (2022, April 6). *Violence prevention.* https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html

Christian, C. W., & the Committee on Child Abuse and Neglect, American Academy of Pediatrics. (2015). The evaluation and treatment of suspected child physical abuse. *Pediatrics*, *135*(5), e1337-e1354. https://doi.org/10.1542/peds.2015-0356

Flaherty, E. G., Perez-Rossello, J. M., Levine, M. A., Hennrikus, W. L., & the American Academy of Pediatrics Committee on Child Abuse and Neglect. Section on Radiology, Section on Endocrinology, and Section on Orthopaedics, and the Society for Pediatric Radiology. (2013). Evaluating children with fractures for child physical abuse. *Pediatrics*, *133*(2), e477-e489. https://doi.org/10.1542/peds.2013-3793

Narang, S. K., Fingarson, A., Lukefahr, J., & the Council on Child Abuse and Neglect, American Academy of Pediatrics. (2020). Abusive head trauma in infants and children. *Pediatrics*, *145*(4), e20200203. https://doi.org/10.1542/peds.2020-0203

Petska, H. W., & Sheets, L. K. (2104). Sentinel injuries: Subtle findings of physical abuse. *Pediatric Clinics of North America*, *61*, 923-935. https://dx.doi.org/10.1016/j.pcl.2014.06.007

Pierce, M. C., Kaczor, K., Lorenz, D. J., Betrocci, G., Fingarson, A. K., Makoroff, K., Berger, R. P., Bennett, B., Magana, J., Staley, S., Ramaiah, V., Fortin, K., Currie, M., Herman, B.E., Herr, S., Hymel, K. P., Jenny, C., Sheehan, K., Zuckerman, N.,…Leventhal, J. M. (2021). Validation of a clinical decision rule to predict abuse in young children based on bruising characteristics. *The Journal of the American Medical Association*, *4*(4), e215832. https://doi.org/10.1001/jamanetworkopen.2021.5832

Sugar, N. F., Taylor, J. A., & Feldman, K. W. (1999). Bruises in infants and toddlers: Those who don't cruise rarely bruise. *Archives of Pediatric and Adolescent Medicine*, *153*(4), 399-403. https://doi.org/10.1001/archpedi.153.4.399

U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2024). *Child Maltreatment 2022.* https://www.acf.hhs.gov/cb/data-research/child-maltreatment.

World Health Organization. (2022). *Responding to child maltreatment: A clinical handbook for health professionals.* https://www.who.int/publications/i/item/9789240048737