A Multidisciplinary Child Protective Team Improves the Care of Non-Accidental Trauma Patients

M. Carol Wright, RN and John M. Draus, Jr., MD

Kentucky Children’s Hospital
University of Kentucky
Lexington, Kentucky
Child Abuse in the U.S.

- In 2013, there were an estimated 679,000 victims of child abuse and neglect (9.1 victims per 1,000 children).
- 1,520 children died from abuse and neglect (2.04 deaths per 100,000 children).
- The incidence of physical abuse was highest in children less than one-year-old (51.1 per 1,000 children).
- 80% of deaths occurred in children younger than 4 years-old.
Child Abuse in Kentucky

- Kentucky consistently ranks among the nation’s highest in terms of rates of victimization and mortality.
- In 2007, we had the highest rate of deaths from abuse and neglect.
- In 2013, we had an overall incidence of 19.7 victims per 100,000 children.
- In 2013, the child fatality rate was 2.27 deaths per 100,000 children.

www.everychildmatters.org
In February 2014, we formalized a multidisciplinary Child Protection Team (CPT).

Designated as a subgroup of our pediatric multidisciplinary trauma peer review committee.

NAT patient data are entered into our hospital’s trauma registry.

CPT meetings are held monthly.

Non-accidental trauma (NAT) patients from the preceding month are reviewed.

Attendance is recorded, and minutes are kept.
CPT Meetings

- The meeting has two parts:
  - The open portion focuses on discussion of specific cases. Child Protective Services (CPS) workers and criminal investigators are invited to participate.
  - The closed portion focuses on performance improvement and patient safety (PIPS), education, and outreach.
Child Protection Team
METHODS

- **Purpose of Study:**
  - We sought to review the effectiveness and accomplishments of our Child Protection Team.

- **Study Design:**
  - We retrospectively reviewed the minutes from our CPT meetings.
  - Study Period – February 2014 through April 2015
  - Trauma registry queried
  - We tracked attendance, cases reviewed, PIPS, and education and outreach programs.
RESULTS

Attendance

- Meeting attendance was very good – 78%
RESULTS

NAT patient volumes

- 141 suspected NAT cases
- 96 cases reviewed for CPT meeting
- 13 cases discussed with CPS or law enforcement
RESULTS

NAT patient characteristics

- 87 patients in trauma registry
- Median age 6 months, range newborn to 10 years
- 55% male
- 87.4% Caucasian, 6.9% African-American, and 5.7% Hispanic
- Median ISS 4, range 1 to 35
- 7 operations
- 15 PICU admissions, median LOS 3 days, range 1 to 11 days
- Median hospital LOS 2 days, range 0 to 22 days
- 3 deaths
# RESULTS

**PIPS** – Clinical Practice Guideline

## Kentucky Children's Hospital Suggested Guidelines for Evaluation of Suspected Non-accidental Trauma

<table>
<thead>
<tr>
<th>Age</th>
<th>Head CT or MRI</th>
<th>Skeletal Survey</th>
<th>Labs*</th>
<th>Abdominal CT</th>
<th>Ophthalmology Consult</th>
<th>Social Work Consult</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 year</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>If bruising on abdomen or elevated transaminases</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>1-2 years</td>
<td>Consider†</td>
<td>Yes</td>
<td>Yes</td>
<td>If bruising on abdomen or elevated transaminases</td>
<td>Consider†</td>
<td>Yes</td>
</tr>
<tr>
<td>2-5 years</td>
<td>No</td>
<td>Only if extensive injury or developmental delay</td>
<td>Yes</td>
<td>Obtain if symptomatic or suggested by physical exam</td>
<td>Not typically recommended</td>
<td>Yes</td>
</tr>
<tr>
<td>&gt;5 years</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Obtain if symptomatic or suggested by physical exam</td>
<td>Not typically recommended</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Labs include CBC, CMP, lipase, PT, PTT, and bag UA. Also consider tox screen.*

†*Indicated if decreased mental status, skull fracture, or head injury*
RESULTS

PIPS – FUSS Completion

- Following NAT patients in our pediatric surgical clinic successfully increased our rates of FUSS completion (40% vs. 92%, p<0.001).
RESULTS

PIPS – Corrective Action

- Standardized letters
  - 6 letters notifying individuals of care concerns and opportunities for improvement.

- Continual follow-up with our Neurosurgery and Orthopedic Surgery teams has increased awareness.

---

Office of Quality Improvement and Patient Safety

KENTUCKY CHILDREN'S HOSPITAL

1000 Children's Way

Lexington, KY 40511

Phone: 859-268-3000

Fax: 859-268-3082

kychc.org


OCTOBER 28, 2013

KENTUCKY CHILDREN'S HOSPITAL

PIPS Corrective Action

- Corrective Action
  - Standardized letters
  - 6 letters notifying individuals of care concerns and opportunities for improvement.

- Continual follow-up with our Neurosurgery and Orthopedic Surgery teams has increased awareness.

---

Office of Quality Improvement and Patient Safety

KENTUCKY CHILDREN'S HOSPITAL

1000 Children's Way

Lexington, KY 40511

Phone: 859-268-3000

Fax: 859-268-3082

kychc.org


OCTOBER 28, 2013

KENTUCKY CHILDREN'S HOSPITAL

PIPS Corrective Action

- Corrective Action
  - Standardized letters
  - 6 letters notifying individuals of care concerns and opportunities for improvement.

- Continual follow-up with our Neurosurgery and Orthopedic Surgery teams has increased awareness.

---

Office of Quality Improvement and Patient Safety

KENTUCKY CHILDREN'S HOSPITAL

1000 Children's Way

Lexington, KY 40511

Phone: 859-268-3000

Fax: 859-268-3082

kychc.org


OCTOBER 28, 2013

KENTUCKY CHILDREN'S HOSPITAL

PIPS Corrective Action

- Corrective Action
  - Standardized letters
  - 6 letters notifying individuals of care concerns and opportunities for improvement.

- Continual follow-up with our Neurosurgery and Orthopedic Surgery teams has increased awareness.

---

Office of Quality Improvement and Patient Safety

KENTUCKY CHILDREN'S HOSPITAL

1000 Children's Way

Lexington, KY 40511

Phone: 859-268-3000

Fax: 859-268-3082

kychc.org


OCTOBER 28, 2013

KENTUCKY CHILDREN'S HOSPITAL

PIPS Corrective Action

- Corrective Action
  - Standardized letters
  - 6 letters notifying individuals of care concerns and opportunities for improvement.

- Continual follow-up with our Neurosurgery and Orthopedic Surgery teams has increased awareness.

---

Office of Quality Improvement and Patient Safety

KENTUCKY CHILDREN'S HOSPITAL

1000 Children's Way

Lexington, KY 40511

Phone: 859-268-3000

Fax: 859-268-3082

kychc.org


OCTOBER 28, 2013

KENTUCKY CHILDREN'S HOSPITAL

PIPS Corrective Action

- Corrective Action
  - Standardized letters
  - 6 letters notifying individuals of care concerns and opportunities for improvement.

- Continual follow-up with our Neurosurgery and Orthopedic Surgery teams has increased awareness.
RESULTS

PIPS

- Equipment needs
  - Digital camera
  - Speaker phone
- Increased focus of hospital social workers.
- Recent hiring of 2 child abuse specialists.
RESULTS

Education and Outreach

- 2014 Kentucky Statewide Trauma and Emergency Medicine Symposium
- Quarterly Prehospital Quality Meeting
- *Through the Looking Glass: A Review of Child Abuse Evaluation and Resuscitation*
  - Ephriam McDowell Hospital
  - April 28, 2015
CONCLUSIONS

- Our CPT meeting has improved the care of our NAT patients.
- We have successfully raised the awareness of NAT at our institution.
- It has provided better communication between our hospital and CPS workers.
- We have improved in-hospital processes for our NAT patients.
- We have provided educational opportunities to outside care providers.
QUESTIONS?