Non-urgent Emergency Department Use in an Urban Pediatric Primary Care Population

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Disclosure

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Conflict of Interest: None
Employer: The Children’s Hospital of Philadelphia
Sponsorship/Commercial Support: None
Goal & Objectives

Goal: report study findings on why families use the Emergency Department (ED) for their child’s non-urgent care when primary or after hours care is available.

Objectives:
1. Describe the prevalence of non-urgent ED use in an urban pediatric population
2. Compare the urgent and non-urgent ED use based on race and insurance status, and
3. Examine the reasons why parents bring children to the ED when access to care is available.
Study Title: Evaluation of Use of the Emergency Department for Non-urgent Care in a Pediatric Primary Care Population

Purpose: The purpose of this study was to evaluate the patients at an urban pediatric primary care site who used CHOP ED for non-urgent care.
Study Team

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Mei Lin Chen-Lim, MSN, RN, CCRC

Brooke Bazz Park, BSN, RN

Rachel E. Cohen, MSN, CRNP

Phyllis Slutsky, M.Ed., RN

Sharon J. Barton, PhD, RN, PCNS-BC
Study Background

Approximately 20% of patients nationwide, with at least one Emergency Department (ED) visit, were children (ages 0-17 years); half or more of these visits were for non-urgent conditions.\textsuperscript{1,2}

An Evidence Based review confirms that the misuse of ED contributes to: \textsuperscript{3,4,5}
\begin{itemize}
  \item High health care costs
  \item Poor continuity of care within the primary care system
  \item Parent inability to identify and prioritize situations requiring ED use
\end{itemize}

Patients continue to seek care in the ED when access to a primary care office (PCP) or after hours program (AHP) is available.\textsuperscript{6}
The Children’s Hospital of Philadelphia (CHOP)

Large pediatric health care network in state of Pennsylvania and New Jersey, United States

Inpatient
• Main Hospital- 535 beds
• Inpatient Rehabilitation – 15 beds
• Surrounding hospital partnerships- 12

Outpatient
• Primary care- 31 sites
• Specialty Care / Surgery Centers- 13
• CHOP Home Care
CHOP Care Network, South Philadelphia

**Total number of patients:**
approximately over 10,340

**Number of visits:**
approximately over 30,800 visits per year

**Providers:**
14 providers (MDs and CRNPs) and additional 35 residents

**Languages:**
English, Spanish, Indonesian, Arabic, Cambodian, Vietnamese, French, Urdu, Chinese, etc.

**Insurance**
73.45% Medicaid, 25.7% Private & 0.85% Self Pay
Methods

Institutional Review Board (IRB) approved

Target Population
Patients of South Philadelphia Primary Care site, Level 4 or 5 ED visits, during year 2011

Chart Review
Confirm urgent or non-urgent status; Nurse Practitioner to review as needed

Scripted Phone Interviews
Patients classified as non-urgent visits not referred by PCP or AHP Reasons for going to ED for care; knowledge of the AHP program, and treatment administered at home prior to ED visit
## Results: Demographics

Total CHOP ED visits from South Phila. Patients = 4484

Non-urgent ED visits (Level 4 or 5) = 1450 (32%)

Primary insurance = Medicaid 76.5%

<table>
<thead>
<tr>
<th>Total N = 869</th>
<th>Non-Urgent n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED Visits (n)</td>
<td>742 (85)</td>
</tr>
<tr>
<td>Age (Mean yrs)</td>
<td>4.11</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>371 (50)</td>
</tr>
<tr>
<td>Female</td>
<td>371 (50)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>474 (64)</td>
</tr>
<tr>
<td>White</td>
<td>105 (14)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>77 (10)</td>
</tr>
<tr>
<td>Asian</td>
<td>57 ( 8)</td>
</tr>
<tr>
<td>Other</td>
<td>29 ( 4)</td>
</tr>
<tr>
<td>Insurance (Yes)</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>714 (96)</td>
</tr>
<tr>
<td>Private</td>
<td>614 (86)</td>
</tr>
<tr>
<td></td>
<td>100 (14)</td>
</tr>
<tr>
<td>Referral by PCP/AHP</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>82 (11)</td>
</tr>
<tr>
<td>No</td>
<td>660 (89)</td>
</tr>
<tr>
<td>ED Visit Duration (Mean hrs)</td>
<td>3.12</td>
</tr>
</tbody>
</table>
Results

ED Usage by Race and Insurance Type (FY2011)

Number of CHOP ED Visits

<table>
<thead>
<tr>
<th>Race/Insurance</th>
<th>5 Non-Urgent</th>
<th>4 Urgent</th>
<th>3 Urgent</th>
<th>2 Acute</th>
<th>1 Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Asians</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>State Blacks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>State White</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>State Unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The Children’s Hospital of Philadelphia®
Hope lives here.
Results: Non-urgent visits

Non-urgent ED Visits for Days of Week

ED Visit Arrivals by Shifts
## Results: Reasons for visit

<table>
<thead>
<tr>
<th>Top Rank</th>
<th>Chief Complaint (n)</th>
<th>Discharge Diagnosis: ICD9 (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fever (247)</td>
<td>Fever: 780.6 (239)</td>
</tr>
<tr>
<td>2</td>
<td>Vomiting (96)</td>
<td>Acute upper respiratory tract infection: 465.9 (156)</td>
</tr>
<tr>
<td>3</td>
<td>Rash (78)</td>
<td>Viral Syndrome, not otherwise specified: 79.99 (121)</td>
</tr>
<tr>
<td>4</td>
<td>Cough (68)</td>
<td>Cough: 786.2 (89)</td>
</tr>
<tr>
<td>5</td>
<td>Ear pain (60)</td>
<td>Suppurative and unspecified otitis media, acute, without eardrum rupture: 382 (78)</td>
</tr>
</tbody>
</table>

### Things Tried at Home Prior to ED

- **Nothing/fear**: 15
- **Non-medicated treatment**: 5
- **Meds +**: 40
- **Seen by PCC several days prior; on meds; symptoms persisted**: 5

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Results: Phone Interview  (n = 70)

**Wait Time:** 60% reported that wait time at clinic would be same or shorter than ED.

**Comparison of Services/Treatment:** 60% reported that treatment/service administered from ED visit would have been the same as clinic.

**Services received from ED was reported as different compare to clinic:**
- Equipment/treatment related (13%):
  - “2 hour continuous respiratory treatment”; “x-ray”
- Tests (6%)
  - “Did urine cath in ED - not sure if they can at CCNSP“; “Instant gratification to reassure not MRSA”
- Confidence better at hospital (11%)
  - “Think hospital is better”; “Saw 3 doctors in ED - only 1 at CCNSP”
Conclusion

**Fever** was the primary chief complaint and discharge diagnosis for non-urgent ED visits

Majority of the patients are using the ED for non-urgent care especially during the times when appointments are available.

1/3 reported going to ED because of tests, equipment, or better confidence at the hospital.

60% reported that wait time at PCP would be same or shorter than ED

Only 60% reported knowledge of AHP; however, majority who used AHP reported as helpful.
Future studies to examine the outcomes of interventions
Practice Changes

**Access to Care Guide**
Creation of document to summarize office policies and procedures for families

**Parent Education Toolkit on Fever**
Implementation of RN fever teaching at newborn, 5 week and 2 month well visit or any other age group as requested by provider

**ED Use Education**
Providers can order “ED use education” within electronic medical record system for nurses to teach about non-urgent ED usage

**Office Video Education while Waiting**
Creation of office video (English & Spanish) to educate about common concerns that can be addressed at home or in the office

Reduce Non-urgent ED Use
Provider Order Set

1. Identifying ED Usage

2. Document counseling for Non-urgent ED use

3. Order in-office teaching
WELCOME TO THE CHOP CARE NETWORK - SOUTH PHILADELPHIA
(215) 467-5870

Here is some information that we hope will help you get what you need from our office. If you need:

| Our Hours          | Monday thru Thursday: 8:30 a.m. to 8:00 p.m. / Friday: 8:30 a.m. to 5:00 p.m.  
|--------------------| Saturday: 8:30 a.m. to 2:30 p.m.  (Sunday: CLOSED) |

Help When the Office is Closed

Our After Hours program means that you can call (215) 467-5870, option #1, 24 hours a day, 365 days a week. Voice mail will say we are closed, but choose option #1 and hang up! A nurse will help you make an appropriate plan for your child.

Well Visit

Well visits are needed within a few days of birth and then at 1, 2, 4, 6, 9, 12, 15, 18 months, age 2, 2 1/2, 3, and every year after. Call (215) 467-5870, option #1, to schedule. Please bring with you to the appointment: your insurance card, any copayments you may have, and any medication your child is taking.

Sick Visit

Call (215) 467-5870, option #1, 24 hours a day. A nurse will help you make an appropriate plan for your child. We do NOT encourage walk-ins. If you call, a same day sick appointment should always be available if needed.

To Cancel/ Reschedule an Appointment

Please call (215) 467-5870 at least 24 hours in advance so that we can give the appointment time to another child who needs it and help you reschedule.

To Speak with a Nurse or Doctor

Call (215) 467-5870, option #1, 24 hours a day. A nurse will help you make an appropriate plan for your child, which may involve an appointment or speaking with a doctor. We do NOT encourage walk-ins.

Medicine Request/ Refills

Call (215) 467-5870, option #3, and leave a clear message. If your child needs to be seen before medicine can be ordered, a nurse will call to schedule an appointment.

Referrals

If your child’s doctor recommends that your child see a specialist, please schedule the appointment and then call our office at least three (3) days prior to your appointment to request a referral. Call (215) 467-5870, option #4, to leave a message for our referral coordinator, who will call to tell you when the referral has been completed.

Forms

For all forms, call (215) 467-5870, option #5.
- WIC: Please call at least one week before your WIC appointment.
- School/Camp: Your child needs to be up to date on well child visits for these forms to be completed. These forms can take 7-10 days.
- Driver’s/Sports Physical/Form A: Your child may need to be seen for an additional appointment before these forms can be completed.

Records

You can request a copy of your child’s medical record at anytime by completing a HIPAA release form at the front desk. If you are transferring care to our office, it is your responsibility to request these records from your child’s previous doctor’s office.

Interpreter Services

You have a right to an interpreter at any appointment and during any phone call to our office. Interpreters are FREE for our families. Just ask when you call, schedule an appointment, or are in the office.

Asthma Nurse

Call our asthma nurse, Susan Brennan, at (215) 590-6134.

Help with Complex Care

Call our care coordinator/nurse practitioner, Rachel Cohen, CRNP, at (215) 590-7835.

Help with Insurance/ Bills

Call our financial counselor, Naquisha Murphy, at (215) 590-0469.

Social Work Assistance

Call our social worker, Sarah Dziedzic, RN, at (215) 590-7840.
Newborn Visit

RN FEVER TEACHING -- NEWBORN VISIT

(Notes: try to do teaching prior to MD visit, document with dot phrase so MD is aware teaching has been done, bring copy of Taking Your Child's Temperature PFE to give to parent and digital thermometer for demo)

*** THIS IS A TEACHING GUIDE FOR RNs TO FOLLOW -- NOT TO BE GIVEN TO THE PARENT ***

- VERY IMPORTANT to take RECTAL temp only for this age group
- Rectal temp of 100.4 or higher – need to CALL DOCTOR
- Rectal temp of 99 or 100 is considered normal
- Review with parent procedure for taking rectal temperature (do they have digital thermometer at home?)
- When to check rectal temperature:
  - Decrease in feedings
  - Fussy/crying more
  - Sleeping more
  - Feels warm to touch
  - Any other signs of illness -- for example: cold

5 Week Visit

DO NOT GIVE TYLENOL FOR ANY REASON TO BABY LESS THAN 8 WEEKS OF AGE UNLESS INSTRUCTED BY YOUR DR.

Do you have any questions about the information we reviewed?

5 week visit -- if had fever teaching done at newborn visit ask parent what they learned or remember from that teaching session – review/reinforce information given at previous visit

If NO TEACHING at newborn visit – review all above information

2 Month Visit

RN FEVER TEACHING -- 2 MONTH VISIT

(Notes: try to do teaching prior to MD visit, document with dot phrase so MD is aware teaching has been done, bring copy of Fever PFE to give to parent and digital thermometer for demonstration)

*** THIS IS A TEACHING GUIDE FOR RNs TO FOLLOW -- NOT TO BE GIVEN TO THE PARENT ***

- Still checking RECTAL temps only
- Important change for this age – the number for the fever is different – now temperature of 101 or above is considered a fever
- If your baby has a rectal temperature of 101 or above – please call the office to talk with a triage RN – your baby may or may not need an apt with the doctor
- If has temperature of 101 or above can give Tylenol based on baby’s weight (RN to calculate Acetaminophen dosage for parent based on today’s weight – calculate using 15mg/kg – can use EPIC to calculate ml to be given – write down for parent)

- Baby’s weight – so will change at 4 month visit, 6 month visit, etc.
- Acetaminophen suspension 160mg/5ml – DO NOT PURCHASE

Do you have any questions about the information we reviewed?

5 week visit -- if had fever teaching done at 2 month visit ask parent what they learned or remember from that teaching session – review/reinforce information given at previous visit

If NO TEACHING at newborn visit – review all above information
Fever is the body’s way of fighting an infection. It is not always a bad thing. How high the fever goes does not indicate how serious the infection is. You should treat a fever if it is over 101°F and your child is uncomfortable. If you have any concerns, call your child’s doctor or nurse practitioner. If your child is less than 2 months of age and has a fever of 100.4°F – call your doctor or nurse practitioner right away.

**Treatment:** (How to keep your child comfortable)
- Keep your child lightly dressed (tee shirt and diaper or underwear). Blankets or heavy clothes may cause the temperature to go higher.
- Encourage your child to drink plenty of fluids.
- There are several medicines for fever. You should give your child the amount the doctor or nurse practitioner tells you, and follow the package directions carefully. Most fevers will drop within one hour of the medicine dose. The fever may return when the medicine wears off. Please recheck temperature before giving repeat doses of medicine.
  - ACETAMINOPHEN (Tylenol, Tempra, Liqiprin, etc.).
  - IBUPROFEN (Motrin, Advil, etc.) is only for children over 6 months old.
  - DO NOT GIVE ASPIRIN TO YOUR CHILD if less than 18 years.
  - ALCOHOL BATHS ARE DANGEROUS and should not be given.
- Report the fever and the method used to measure it – do not add or subtract to the temperature reading.
Video While Waiting

- Education provided by familiar staff
- Topics include many reasons people go to the ED for non-urgent usage AND ways to prevent spread of illness
- Families in waiting room are “captive audience”
- Education provided in English and Spanish for key topics
- [video link]
References


References


Thank You!

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Phyllis Slutsky

The Children’s Hospital of Philadelphia®
A pediatric healthcare network