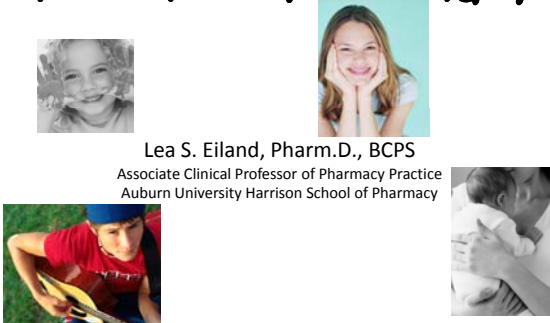



Pediatric Pharmacy



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How I became interested?

- Shadowing!!!
- Wanted to see the role of a hospital pharmacist



How I became interested?

- Shadowed a NICU pharmacist
 - Unit based
 - Rounded with the medical team
 - Entered all orders for the NICU Level I and II
 - Verified daily medications
 - Wrote all TPNs for unit
 - Made IVs if needed



Why I liked it!




Sydney at 4 days

Why I liked it!

- Interacted with other health care providers (physician, nurse practitioner, nurse, resident, etc)
- Rounded with team to see patients
- Played a role in recommending medication for infants, verifying medication, filling medication, and dispensing medication
- Critical care setting

Growing!



Sydney at 4 weeks

Patient Population

- Age
 - Birth to 18 years
 - Newborn, Infant, Child, Adolescent
- Weight
 - 500 grams to 200+ pounds
- Wide range of disease states
 - All organ systems
 - Vary per time of year

Why is there a need for pediatric pharmacists?

- Specialized population
 - All kinetic parameters differ than adults
 - Volume of distribution
 - Skin/muscle development
 - Hepatic/Renal development
- Different disease states
 - Organ development versus deterioration

Why is there a need for pediatric pharmacists?

- Medication dosing
 - Weight based dosing
 - Specific for each patient
 - Medication errors
- Different medications used in population
- Limited data on drug efficacy/safety in pediatrics

Why is there a need for pediatric pharmacists?

- Different dosage formulations
 - Suspensions, tablets, capsules
 - Concentrations
 - Palatability
- Nutrition
 - TPNs, formula
- Breastfeeding issues

Why is there a need for pediatric pharmacists?

- Maternal-fetal transmission
 - Diseases
 - Medications
 - Illicit drugs
- More than 200 million prescriptions are written for children and teenagers annually

Sleeping and Eating!



*Sydney
at 2
months*

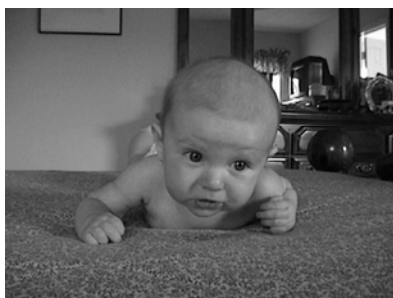
Areas of Pediatrics

- General Pediatrics
- Neonatology
- Pediatric Intensive Care
- Ambulatory Care/Primary Care

Sub-Specialty areas

- Hematology/Oncology
- Bone Marrow Transplant
- HIV
- Pulmonary (Asthma/Cystic Fibrosis)
- Nutrition

Trying to look!



*Sydney
at 3
months*

Pediatric Residencies

- 31 Pediatric PGY2 Residencies
 - require PGY1 first
- 23 PGY1 programs in a pediatric hospital
- 5 pediatric fellowships



My Residency Experience

- | | |
|--|---|
| <ul style="list-style-type: none"> • Clinical sites <ul style="list-style-type: none"> – Neonatology – PICU – General Pediatrics – Ambulatory Care – Neurology – High-Risk OB/GYN – Infectious Disease – Hematology/Oncology | <ul style="list-style-type: none"> • Research/ Scholarship • Didactic Teaching • Facilitation • Precepting students • Pediatric Community Projects • Attending Pediatric and Pharmacy Conventions |
|--|---|

Ooh Music and Colors!



*Sydney
at 4
months*

My Practice Site

Clinical Practice

- Work with UABSOM Division of Pediatrics
- Work with Huntsville Hospital Women and Children
- General Pediatrics
 - Patients are Newborn-18 years of age
 - Mostly Medicaid patients
 - See our patients and those without PCP
 - See approximately 125 patients per month

My Typical Morning



My Typical Morning

- Arrive at the hospital around 7am
- Work-up my patients on service
- Attend pediatric morning report
- Evaluate patient X-rays with radiologist
- Round with interdisciplinary team
- *Students are part of all activities

Our Peds Team



My 'Typical' Afternoon

- Meet with students
- Attend UAB Grand Rounds/ Hospital Staff Developments/ Student Presentations
- Additional research to DI questions/ projects
- Research with practitioners
- Work on scholarly activities/teaching material
- Keep up-to-date with literature

Other activities

- Organizational Involvement
 - National
 - Pediatric Pharmacy Advocacy Group (PPAG)
 - www.ppag.org (student member rates)
 - ASHP (Peds/Neonatal Network)
 - ACCP- Pediatric Practice Research Network
 - State
 - AISHP

Don't eat Mr. DUCK!



*Sydney
at 5
months*

Examples of Patients

- 6yo male brought to the ER for drinking antifreeze
 - Color- florescent green
 - Placed in Gatorade bottle in garage
 - Outcome-
 - No metabolic changes
 - Child understood and parents understood importance
 - Overnight admission and released next day

Patients

- 8 yo female brought to ER for 3 day history of fever $>102^{\circ}\text{F}$, generally sick child
- PE
 - Enlarged cervical lymph nodes
 - Scratches on skin which were healing
- Outcome
 - Cat Scratch Disease- Bartonella henselae
 - Treated with azithromycin

Patients

- 17 yo male found lethargic, disoriented; admitted to parents that he ingested the bottle of celexa; brought to ER
- Evaluated- not life threatening situation
- Admitted to observe
- Psych work-up
- Transferred to in-patient facility
- Zyprexa, Antidepressants, Tylenol overdoses

OK- I will smile again!



*Sydney
at 5
months*

Patient

- 18 year old male with left eye erythma and swelling
 - Evaluation of CT and surgery
- Popped pimple on nose and symptoms started 2 days later
- Diagnosis: Orbital cellulitis
- Vancomycin IV initiated



Patients

- 3 mo female brought to the ER for cough, congestion, increase work of breathing, and decrease intake for 2 days
- PE- viral infection symptoms; CXR- air trapping and atelecetasis; RSV +
- Admitted for O₂, and supportive care
- Discharged after 4 days

Other disease states

- | | |
|-------------------|----------------------|
| • Asthma | • Kawasaki's Disease |
| • Pneumonia | • Sickle Cell Crisis |
| • Cystic Fibrosis | • ADHD |
| • Trauma | • Seizures |
| • Dehydration | • Cerebral Palsy |
| • Gastroenteritis | • Infections |
| • Vaccinations | • DKA- Diabetes |

Carrots are great!!!



*Sydney
at 6
months*

Working in Pediatrics

- Desire to work with children
- Emotional - good and bad
- Strong investigative, research, and problem-solving skills
- Strong oral and written communications skills



Working in Pediatrics

- Options of environments
 - Hospitals
 - Children
 - General
 - Academia/Universities
 - Cancer Centers



This is mine???



*Sydney
at 7
months*

How to become a Peds Pharmacist

- Shadow a pediatric pharmacist
- Request a pediatric rotation
- Complete a pediatric residency
- Apply for a pediatric position!



Questions?