Case studies in hospital-based care for immigrant children

Janine Young, MD, FAAP
Professor and Chair, Division of Academic General Pediatrics
UC San Diego/Rady Children's Hospital
October 7, 2022

1

Case #1

- You are called by the PICU to receive sign-out on a 2- year- old patient who has recently been extubated, is now on 2 L of oxygen and who will be coming to the floor for further management and work-up of a primary pulmonary issue. WA is a 2-year-old Iraqi refugee who lived outside of Baghdad with her mother, older sister, and father. Her family had been accepted into the US and they were sent to Denver, Colorado via a commercial airline to be resettled there. They flew to JFK, NY and then arrived at DIA where she was noted to have significant respiratory distress. She was transported, via ambulance, from DIA to CHCO ER where she was intubated and admitted to the PICU in respiratory failure.

2

Further History

- The medical team advises that the parents only speak a dialect of Arabic and that you need to specifically ask for an Iraqi-Arabic interpreter.

3

- WA arrives on the wards with her parents and the Iraqi-Arabic interpreter isconnected; your medical team learns the following:
- WA had a history of intermittent cough in Iraq, particularly if she was running or had a cold. She seemed fine otherwise. When the family landed in Denver, WA seemed to be working harder to breathe and was wheezing a bit. She also had bluish lips. Over the next 30 minutes, she had more problems breathing and was not really responding. We asked for help and medical personnel came.
- WA was born at home, NSVD to a 26-year-old G2P2 mother. She seemed to be of "normal" size. Mom had no complications during pregnancy.

4

- WA has had no real issues since then except that she was intermittently coughing in Iraq.
- She had never been hospitalized, had any surgeries or blood transfusions.
- Meds: "*Has WA taken any medications, home remedies, herbs, or spices in Iraq or here in the US?"*--No
- Allergies: None known
- FH: "*Is there any history of medical issues in your family, and what I mean by that is does WA's parents, siblings, grandparents, uncles, aunts, or cousins have any medical problems or have they ever had any medical problems?*" Sister has cough sometimes with exercise

5

- SH: "*Please do not be offended by this question, but are mom and dad related?*" The parents do not seem to be offended and answer "*Yes, we are 1st cousins"*
- Prior medical records? IOM bag-- photo

6

Insert photo of Overseas medical record

- link to state refugee health coordinators phone and email
- Refugee status—multi year(s) process, presidential determination (quotas, countries), 6 months prior to arrival is when medical screening vaccination starts
- Vaccines received overseas add infographic

7

What is done overseas prior to arrival?

- "full PE" usually by family med MD with 2-5 years experience (minimum peds experience)
- If significant med issue identified—treated and stabilized to assure no issues on commerical flight and non contagious
- Diagnoses get missed—patients and families are worried that if there are significant med issues discovered it can delay resettlement or they might be found ineligible so may not share all information
- Altitude is an issue for anyone with undiagnosed or known cardiac, pulm issues, SC, SS, thal

8

Slide of studies done overseas by IOM/WHO

9

- **Full PE** (pertinent positives and negatives only noted here):
- VS: weight <<5th percentile Z score ~-2.5, height <5th percentile, Z score –2.0; HR 30, RR 20, Temp 37, BP 70/50
- Gen'l mild respiratory distress, small, thin, makes eye contact, non-verbal
- HEENT: multiple caries to pulp, mild facial dysmorphism—large nose, wide set eyes, low set ears, R exotropia, red reflexes visualized bilaterally, neck without masses, mild conjunctival pallor
- Pulm: rhonchi in B lungs in all fields but good aeration B, mild IC retractions and belly breathing
- Abd: s nt nd no hsm
- Skin: no rashes, mild pallor
- MS: thin limbs, walking
- GU: normal female external genitalia
- Neuro: grossly intact

10

What laboratory studies and/or prior results from the PICU do you want?

11

Laboratory studies

- CBC/diff: wbc 6000, hgb 9.0, rdw 25, mcv 16, plts 550, diff AEC 1000
- Comp met panel: wnl
- TSH: wnl
- QFT: neg
- CXR:
- Chromosomal microarray—pending
- HIV neg
- Syphilis EIA neg
- Hep B s Ag neg
- Hep C Ab neg

12

- Lead, venous: 15
- Strongyloides IgG: positive
- Stool PCR: giardia positive

13

Photo of CareRef

14

- Child sent home on oxygen 1 L via nc and appointment arranged in 2 days at Lowry Family Health Center/DH to establish care with PCP—sign out given to pediatrician at Lowry including need for EI, hearing testing, acute need for dental services
- MDI albuterol 2 p q 4 hrs, f/u with pulmonary in 2 weeks, genetics appt pending, ferrous sulfate daily x 3 months, ophthalmology appt in 1 month
- Parents given AVS in Arabic but an astute intern asks if the parents can read letters and numbers in Arabic—NO
- Social worker programs "911" into phone and explains with the interpreter when to use that number, WIC arranged

15

PCP visit hospital follow-up....20 -minute visit???

- Linked to Iraqi-Arabic speaking Care Navigator (!)who arranges:
  - Transportation for all appointments, reminder calls for appointments—Ophthalmology, audiology, pulmonology, genetics, WIC
- Linked to DH Complex Care Nurse
- WIC appointment, pediasure
- Nurse teaching on ferrous sulfate administration and f/u appointment in 1 month for weight and height check, cbc
- EI for home speech
- Audiology –passes hearing
- Genetics—no known genetic abnormalities
- PCP counsels parents on consanguinity, links to Title X birth control appointment, recommends that parents be seen by geneticist for genetic testing
- Social work for SSI application

16

Fast forward

- 4 years later....
- In school with IEP
- WA talking more still getting speech therapy, hearing wnl
- Exotropia corrected, wears glasses (sometimes...) and sees ophthal q 6 months
- RAD and bronchiectasis on mdi prn, sib with rad as well and corrected exotropia sees pulm q 6 months
- Mother can now communicate in English and tracks all appointments closely

17

Points to get across

- Slide of AAP history. Ask questions
- Literacy, consanguinity data
- Travel history
- Refugees all have IOM/WHO PEs overseas—records from state refugee health coordinator; if arrived in another state and screened there, call that state's refugee health coordinator to get records
- Refugee arrivals all have DME at DH, STRIDE, Clinica, Peak Vista, or Sunrise usually within 30 days of arrival-90 days with standard testing done—see CAreREf and CDC domestic refugee screening guidelines
- All refugee arrivals are assigned to one of 3 resettelment agencies—IRC, ACC or LFS; some supports available, including complex care management—call if this is needed.
- How does CHCO document demographics data in the EMR—literacy level of parents?, primary language for medical information?, birth country? expanded ethnicity?
  - Why is this data important?

18

Case #2

- XX is a 14- year- old former unaccompanied refugee minor from Ethiopia who presented to the ER with B lower back pain. She has been living in the US since she was ~6 years old. She presents to the ER with lower back pain on and off for the past 2 months. She is an all honors student at DSST and comes in with her maternal aunt. She runs track.
- She shares that she has been really stressed recently because of all of the tests she has to take at DSST, her grades, and is worried about not doing well.
- She c/o vague B lower back pain w/o radiation of pain and has no weakness or parethesias in legs or buttocks
- She denies dysuria, frequency or urgency
- VS all wnl. She has a focused examination, including strength of LEs, LE reflexes all wnl, u/a wnl, UPT neg
- LMP 1 week ago; Pt denies sexarche; she is sent home, diagnosed with muscle strain and advised to take ibuprofen q 6-8 hrs prn back pain to use a heating pad and to f/u with PCP

19

Meanwhile....

- Patient was not asked nor did she share that 2 weeks prior, she had been seen by PCP for a WCC and also c/o intermittent back pain with a neg PE. CBC/diff sent given that she is menstruating to screen for anemia and because the provider could not find prior refugee screening lab results, they send strongyloides IgG, schistosoma IgG, hep B s Ag, hep C Ab, syphilis EIA, and quantiferon per CareRef guidelines LINK--

CareEverywhere positive results:

- Cbc/diff showed: hgb 9.0, mcv 75, rdw 16, plt 400, AEC 300—unclear etiology
- Schisto positive—treated with praziquantel x 2 days
- Quantiferon positive—sent for CXR negative referred to TB Clinic to start treatment for LTBI

20

3 weeks later....

- Patient again presents to CHCO ER with back pain complaining that it is somewhat worse, intermittent, and she has taken a break from track to help with what maybe is a pulled muscle
- Plain films of lower back show...

21

Xray of pott disease

22

- Pt with anemia of chronic disease (normocytic anemia) from Pott disease, schisto unrelated but treated—mansoni and hemotobium most common in SSA, picture of schisto life cycle
- a/w liver fibrosis and bladder ca respectively, chronic infection can lead to eosinophilia and needs treatment parasitic trophism
- To TB clinic for treatment of TB of the spine, pain management, scoliosis from Pott's, anemia resolved with TB treatment
- Chart review from Refugee DME at 6 years old at a prior Denver refugee clinic showed TST negative, underweight, normal cbc/diff, no testing for hep B, schisto or strongy
- Why was TST initially negative and now positive? She had no h/o international travel since US arrival at 6 years old.

23

Fast forward 6 years

- Pt received full-ride scholarship to Howard University and is pain-free.

- Take home messages:
- CDC DME guidelines and CareRef—learn how to quickly access these to help determine testing. Is it a hospitalist's job to check studies or the PCP? Do all PCP's know what tests to do? Do all hospitalists?
- If no records—screen
- Immunosuppression from FTT, overwhelming TB disease, other chronic disease may cause TST or QFT to be false negative—have low threshold for repeat testing or further w/u if symptoms—including chronic FTT not responsive to increased caloric intake
- Whether refugee, undocumented immigrant, asylee, etc parasitic infections, hep B, micronutrient deficiencies can affect any immigrant, tb, lead—consider how this information can change your practice and how you approach caring for immigrants
- What systems QI can happen at CHCO? REAL data standard collection to look for trends in disease in sub-populations, toggle services to sub-pops affected by acute medical issues (COVID , enterovirus/paralysis), QI scheduling interpreters in advice particularly for rare languages, need for care navigators focusing on specific popualtions.

24

And finally, resources in one place

- CareRef
- CDC Domestic Refugee Screenign Guidelines
- MN COE in Newcomer Health
- Society of refugee healthcare providers
- N Am refugee Health Conference Calgary Canada meeting
- AAP Council on Immigrant Child and Family Health

25

- Thanks
- Gracias
- Merci....

26