Pediatric Morbidity, Mortality and Improvement Sample Case:

Overview and outline of format:

Situation: Statement of the problem with brief overview of rationale for selection of the case, admitting diagnosis and adverse outcome/complication as applicable

Background: Pertinent History, labs, imaging, hospital course with timeline of Key Events. Recognition and management of the complication.

Assessment and analysis: Error and root cause analysis using healthcare matrix tool with the help of Audience Response and small group discussions

Review of Literature: Any evidence-based literature that is applicable and identification of at least one main ACGME core competency the case teaches us about

Recommendations: How complications could have been prevented, ameliorated, or better managed. What we would have done differently. Identification of any knowledge gaps and take home learning points. Development of action plan with information compiled from small group leaders.

Assignment of action plan to task force

1-2 Medical Knowledge Questions, 5 Evaluation Questions and wrap up

CASE:

Situation: 2 week old male born at term to 19 yo G2P2 presenting to clinic for 2 week well child examination. Mom reports redness and drainage from L eye for the past 3 days

Case Synopsis:

2 week old male seen in clinic with eye drainage. Concern for chlamydial conjunctivitis. Incorrect test ordered and over the ensuring days, difficulty in obtaining correct test and treatment for presumed diagnosis. Seen in emergency department with poor communication resulting in treatment delay.

Rationale for selection of case:

Review differential diagnosis of infantile eye drainage
Review management and testing of chlamydial conjunctivitis
Discuss system errors and update protocols

Identified issues:

Inappropriate management of chlamydial Conjunctivitis
System's error with correct testing for infantile eye drainage
Communication gap with Emergency Department and Pediatric Ambulatory Clinic

Action Plan from Sample Case

Education of providers regarding diagnosis and management of ophthalmia neonatorum
Modification of lab orders to identify a contact person for after hours
Improved communication/documentation when sending patients to the ED

Blank matrix:

Healthcare Matrix: Care of Patient(s) with....						
IOM Aims / ACGME Competencies	SAFE[1]	TIMELY[2]	EFFECTIVE[3]	EFFICIENT[4]	EQUITABLE[5]	PATIENT-CENTERED[6]
Assessment of Care						
Patient Care[7] (Overall Assessment) Yes/No						
Medical Knowledge & Skills[8] (What must we know?)						
Interpersonal & Communication Skills[9] (What must we say?)						
Professionalism[10] (How must we behave?)						
System-Based Practice[11] (What is the process? On whom do we depend? Who depends on us?)						

Matrix for Sample Case:

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Assessment of Care						
Patient Care[7] (Overall Assessment) Yes/No	Y/N	N		N	N	Y
Medical Knowledge & Skills[8] (What must we know?)	Y/N	Y	N	Y/N	Y	Y
Interpersonal & Communication Skills[9] (What must we say?)	Y/N	Y	Y/N	N		Y
Professionalism[10] (How must we behave?)		Y/N				
System-Based Practice[11] (What is the process? On whom do we depend? Who depends on us?)	N	N	N	N	Y	Y

Sample Case Timeline:

Day 1:

Subjective

Patient presents to clinic for 2 wk wcc with complaints of "pink eye" that started with yellow drainage 3 days ago. Mom notes the drainage is worse when he sleeps. She has also noticed a dry cough since last night. There have been no fevers. Otherwise doing well.

Exam

L conjunctiva injected, small white-yellow exudate noted, slightly edematous eye lid, no erythema surrounding. R eye normal appearing

Assessment & Plan

Swabs from L eye including aerobic culture, and chlamydia and gonorrhea RNA probe obtained

- Reason for swabs and confirmation of specific swabs needed discussed with clinic lab

Nasopharyngeal swab for chlamydia and gonorrhea RNA probe also obtained

XR chest obtained

Erythromycin PO suspension ordered

Plan for follow up in 4 days

1650 CXR obtained : No evidence of pneumonia - family called and updated on results. Again stressed the importance of the antibiotic while awaiting cultures

1920 Attending spoke with kroger pharmacy and was informed mom had not been in to pick up prescription. Attending notified that formulation ordered was not available. New prescription given to pharmacy.

Day 2: 0900 Notified by OSF send out lab that swabs obtained previous day are not the correct swabs for Mayo After discussion with OSF lab, decision was made to have mom come to OSF to have sample obtained rather than sending appropriate swabs to clinic to have samples then sent back to OSF

Multiple messages left on mom's phone to notify her of need to have swabs obtained again

Aerobic culture from L eye resulted as few coag (-) staph, few diphtheroids (likely usual flora)

1500 Mom returned call and was informed that infant needed to be taken to OSF that day to have the swabs recollected. When the nurse asked about the antibiotic, mom reported she had not yet gone to pick it up. Mom advised that infant needed to be taking the antibiotic.

Day 3: 1000 Phone nurses attempted to reach mother but another family member answered. Message left to call clinic. Labs have yet to be obtained and prescription has not been picked up.

1030 Mom returned phone call. Attending physician spoke with mom and again stressed the importance of obtaining the swabs and starting antibiotics. Appointment made for 1320 at clinic as that was the earliest mom reported being able to come.

1400 Clinic called mom after infant was a no show for appointment. Grandmother answered phone and stated infant was not yet on the way to the clinic as they could not find a ride

1445 Clinic ordered a cab to pick patient up and bring them to clinic

1600 Patient arrived at clinic

Subjective

Mom reports some decrease in the amount of drainage and it has become more clear. Infant continues to eat well. No fevers. The cough has improved. No antibiotic has been started.

Exam: L eye with copious clear drainage, conjunctiva injected, mild edema of eyelids, Otherwise normal exam

Assessment & Plan

Concern for chlamydia conjunctivitis remained

Family escorted to OSF lab by attending who collected swabs to be sent to Mayo

Erythromycin suspension reordered to MediPark for ease of filling - Attending notified that without medical card, prescription will cost between $300-500

Decision made to treat with topical erythromycin overnight and seek emergency medical card coverage for erythromycin suspension in the morning
Erythromycin ointment picked up and paid for from MediPark by provider and application instructions explained to mom

Day 4: 1000 Attending called and received update on patient status. Per aunt, infant was doing well and receiving the topical erythromycin
2120 Resident (ordering provider) paged by lab for notification of positive chlamydia RNA from conjunctival sample.
2145 Mother updated on results and necessity to start antibiotics. Mom reported she could not afford antibiotic and needed to wait for medical card coverage. Resident explained that systemic antibiotic treatment needed to be started immediately. Evaluation in ED with initiation of PO antibiotics recommended to mom who agreed.
ED provider working in Peds pod notified by phone of history and needed treatment by Resident. Attending on call for clinic notified of results and plan.
Resident placed note in epic chart documenting the above
2254 Infant triaged in ED: "Pt was seen at clinic yesterday for eye drainage, rx given but pt's medical card has not come yet, and mother couldn't afford medication, they were referred here. Mother states today, no eye drainage. Mother denies fever/v/d/changes intake/output."
2343 Initial ED RN Note: "Pt's mother states she was sent here from the clinic to get "tx for pt's left eye". Per mom, pt had drainage yesterday, but none today. Per mom, she already has the medicine in her purse that the clinic sent her here to get treated for."
2349 Evaluated by ED physician:
HPI: "2 wk.o. male who presents to the ED accompanied with mother for prescription fill. Mother states patient was diagnosed with chlamydia infection in bilateral eyes and prescribed erythromycin yesterday. Mother states she could not pick up the erythromycin ointment due to lack of vehicle and no insurance. She states her insurance card is coming in the mail. Pediatric clinic called ED to give prescription to patient. Upon ED evaluation, patient apparently has the erythromycin ointment here. She states patient has improved bilateral eye discharge since use and diagnosis."
ED Course: "Discussed plan to discharge patient now that mother realized she has erythromycin. No work up needed for further evaluation. Explained use of ointment with mother. Mother understands and agrees with plan. All questions answered."
0002 Patient discharged to care of mother with next day clinic follow up

Day 5: 0910 Clinic attending reviewed documentation from ED visit and identified that patient had not received PO antibiotics. Attending transferred Rx to medipark to allow for administration of first dose in clinic. Social worker confirmed medical coverage and arranged to pick up Rx prior to patient's appointment
1655 Infant arrived at clinic for follow up

- Improvement in conjunctival injection
- First dose of erythromycin suspension given in clinic
- Mom shown how to administer medication