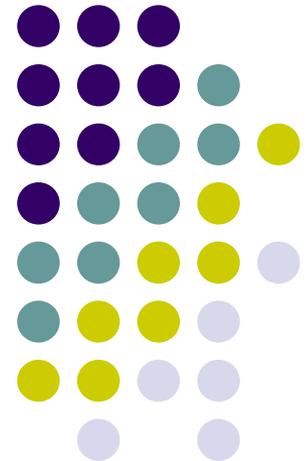
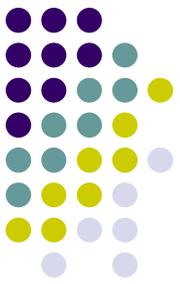


The Gift of Running Pulmonary Tuberculosis in a Child

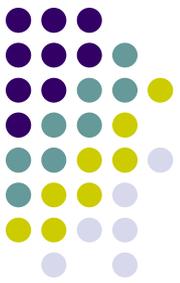
Linda C. Swanson, RN, PHN
Thomas Jefferson Health District
March 23, 2010





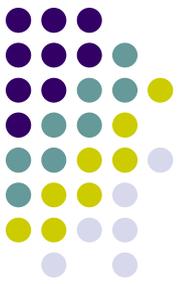
Background

- 11 year old Sudanese boy (weight 77 lbs)
- Arrived in Virginia 2/13/09 with his 13 year old brother. 24 year old older brother 1st met these children in 2007 and spent the next 2 years trying to get them out of the camps and to USA
- Had spent 7 years in a Nairobi, Kenya refugee camp
- Came to live with a couple in Fluvanna County
- Entered private school on 2/17/09 as a day student



Case Summary

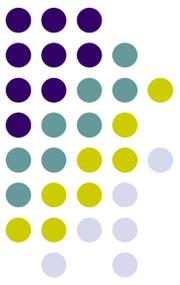
- PPD 5 TU placed 2/17/09 (per school's protocol). Read 2/19/09 as 30 mm. Asymptomatic except for rare non productive cough "like he was clearing his throat".
- 2/23/09 Abnormal CXR—abnormal fullness Rt. para tracheal and hilar regions without a discernable parenchymal abnormality. CT scan recommended
- 2/25/09 TC to Fluvanna Health Department by one of school nurses. Child removed from school. Home visit by PHN. Child placed on isolation. Sputum specimens initiated on 2/26 (induced)
- 2/27/09 CT scan showed abnormal hilar adenopathy with associated lesion Rt. upper lobe.



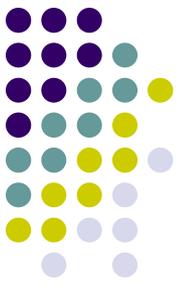
Summary, cont.

- Sputum of 2/26 + for MTB by probe on 3/13. Culture pan-sensitive.
- Of all 9 smears, all were Neg. except 1 on 3/4/09 showed +/-.
- Culture conversion 4/23/09 six weeks after beginning therapy.

Summary, cont



- Initial Drug TX began on 3/12/09-5/11/09
Five days/week by DOT (43 doses in 8 wks).
- Continuation Phase began 5/14/09-12/14/09 two days/week by DOT (60 doses in 30 weeks).
- Follow up CXR 5/6/09 showed improvement.
- CXR at end of therapy revealed subtle residual opacity within the region of the previous lesion within the Rt. Upper lung zone—likely chronic sequela from previous TB. No lymphadenopathy.



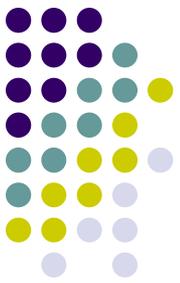
Investigation

- Initial contact testing on 10 high risk contacts revealed no reactive TST's (13 year old brother had non reactive TST on 2/19 at entry into private school)
- Repeat testing in 8 weeks later revealed 1 HR contact converted. This was 13 year old brother. Neg. CXR and treatment with INH X 9 months
- 12 additional contacts (in school setting). Of those, no positive tests at initial testing. At follow up testing, no positive tests in 11 of the contacts. The 12th child was lost to follow up.

Case Management



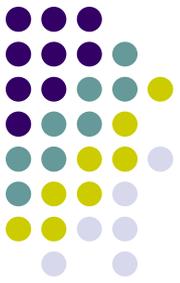
- Met with new adoptive family day of TC from the private school to discuss situation and develop action plan
- Telephone conference with private school Director, department heads, and DON by Dr. Lilian Peake and Rita Jackson (TB Senior Nurse). PHN's were present at the facility during meeting. This approach was a GREAT idea!
- Strategy developed with School and Health Department.
- TST's done by health department, private physicians and the school nursing staff.



Case Management (con't)

- In service to school nursing staff regarding DOT. Nurses very adept at giving daily meds. PHN's gave meds on Holidays and breaks. PHN's saw client at least monthly. Communication with DON weekly.
- Weekly weights on child initially, then q month. Weight at end of therapy 92.2 lbs!
- Kept pulmonologist, school physician, DON, adoptive parents and informed of child's status.
- Monthly evaluation of brother while on LTBI.

Outreach/Lessons Learned



- Cooperation between school and Health Department was critical. School houses hundreds of children from all over the world.
- Having adoptive family and older brother “on board” with situation benefited everyone— “fear factor” kept to a minimum.
- Reinforcement of how critical it is to get “authorities” educated early with what health department is dealing with and the need to get their input and “Buy In”.