

Evaluation of algorithm for Smear Negative, HIV Positive Suspects

AMPATH

Moi University School of Medicine

Eldoret, Kenya

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Find Symposium

IUATLD World Conference

November 2007

Overview

- Update of Laboratory Services
- Clinical Issues
 - Education of all Providers
 - Evaluation of the Process of Care
 - Design of the Data Collection
 - Status to Date

MYCOBACTERIA REFERENCE
LABORATORY →

Staff and new Lab



New space



Smear diagnostic bench



Room for staining



Room for centrifugation



Laboratory Results

Month	Total	Positive	% Positive
April	608	68	11.2%
May	486	76	15.6%
June	694	80	13.5%
July	359	29	8.1%
August	294	33	11.2%
September	382	82	21.5%

MIGT 960 in use



Laboratory Results

Month	Contamination Rates
April	14.3%
May *	10.4%
June **	9.4%
July	7.1%
August	7.7%
September	8.9%

*increase incubation time to 20 minutes

** Increase mycoprep concentration

Capilia Identification Testing



Capilia Validation

	Capilia Positive	Capilia Negative	Discordant
AFB Cording	50	0	0
AFB No Cording	0	11	0
No AFB; Bacteria	0	5	0
LJ growth ZN +	5	0	0

Challenges in the Lab Continue

- Supply Ordering and Management
 - Intermittent Reagent Shortages
- Establishment of Laboratory Structure
 - Merging of Laboratories and Management Structures
 - MTRH, MUFHS, AMPATH Collaboration
- Technical Reviews
 - Confusion due to multiple Site Visits

Next Challenge: Education

- Emphasis from NTLP side is thinking HIV in the TB Clinic
- We need emphasis on TB on the HIV side as well

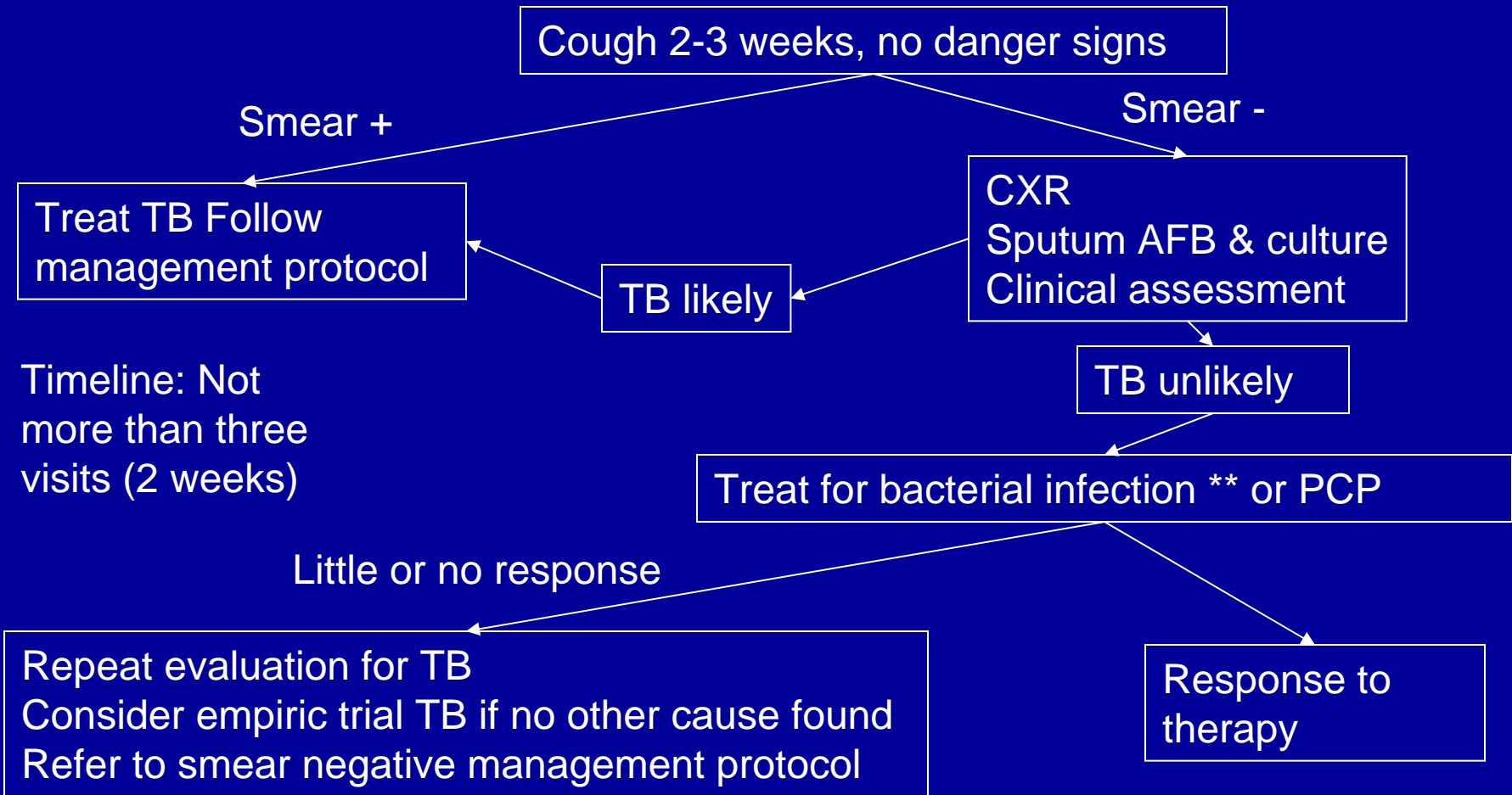
AMPATH Training

- Smear negative algorithm evaluation is centered at MTRH AMPATH Clinic
 - 18 other AMPATH sites
- Goal: All AMPATH providers updated on TB/HIV Care (including this protocol)
- NTLP collaboration
 - NTLP training emphasizes HIV testing, CPT and referral for ARV for HIV positive suspects
 - Guidelines of the NTLP respected but adapted to AMPATH use (e.g. hepatitis protocols)

TB/HIV Symposium

- All day conference
 - Tb pathophysiology, treatment, diagnosis, management and complication protocols, laboratory use, cough monitor (Community screening) program
- All AMPATH Providers (178)
- NTLP representatives from every site also invited
- NTLP Director and AMPATH Clinical Director opened the conference (DrS. Sitienei and Kimayuo)
- All protocols endorsed by the NTLP

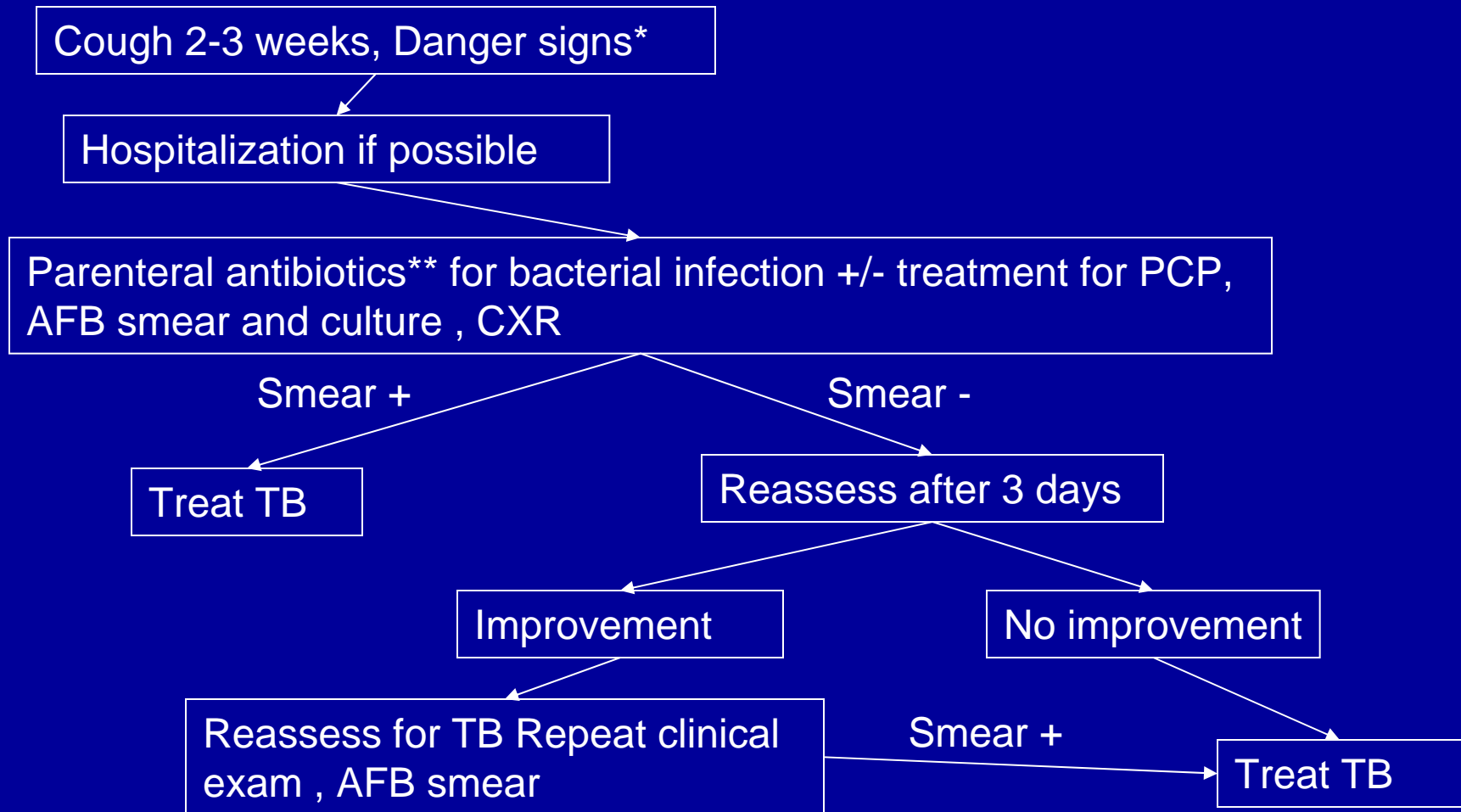
Evaluation of the Ambulatory Patient with no danger signs*



*The danger signs include any one of respiratory rate >30/minute, fever >39°C, pulse rate > 120/min and unable to walk unaided.

**Antibiotics should not include Fluoroquinolones

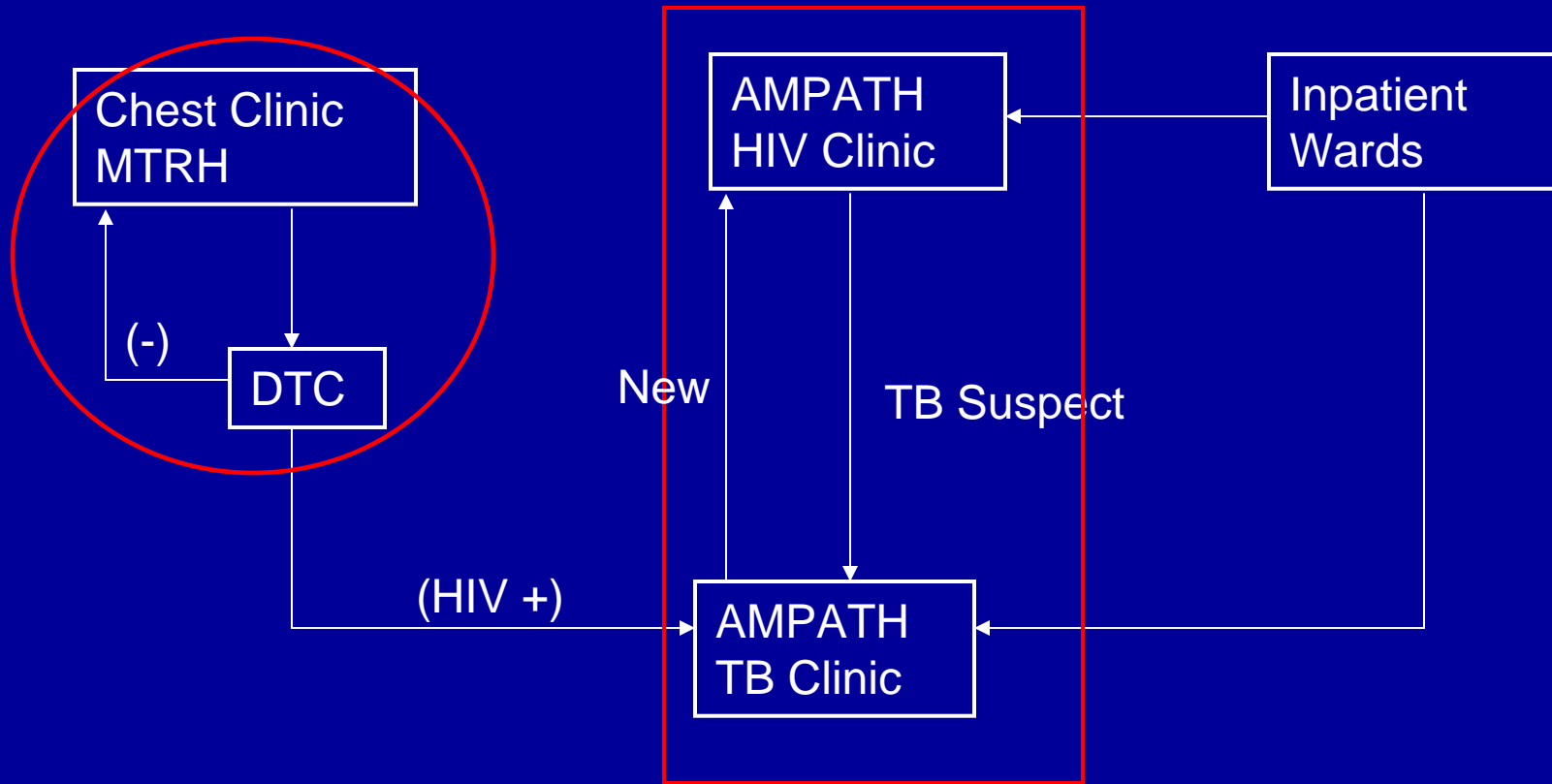
Evaluation of the Seriously Ill Patient



*Danger signs include any one of respiratory rate >30/minute, fever >39.0 C, pulse rate >120/minute and unable to walk unaided.

**Antibiotics should not include a fluorquinolone.

Patient Flow Chart (Care entry pathways):



Universal DTC for all admissions to MTRH in patient wards

AMPATH TB Clinic staffed by one nurse trained in NTLN and AMPATH protocols

Discharges from the wards lead to appointments at both AMPATH rooms

Newly diagnosed HIV patients with TB go to AMPATH TB Clinic that day and are given an HIV appointment to see the AMPATH HIV staff within a week

Data Collection

- Information for AMPATH clinics are in the AMRS – an electronic medical record system
- Much of the TB information had never been captured
- NLTP forms had no culture results, only smear results
- What info did we want to know?
 - Symptoms (cough duration, weight loss, fevers)
 - Epi- TB contact?, previously treated?
 - Limited PE findings
 - Chest radiograph report
 - Clinical assessment - TB or not TB?

Design of the Data Collection

- New Sputum request form designed
 - NTLP forms have smear only information
- Data Requested
- Involvement of all staff
 - Ward staff, Chest clinic staff at both clinics
 - Lecture on MDR/XDR TB to all staff (September '07)
 - Information on the new mycobacteriology lab services
 - Information on the new algorithm
 - Requested feed back on form design
 - Information
 - Ease of Use

Where are we now?

- Staff all trained
 - TB Clinic staff
 - Ward staff
 - Chest Clinic staff
 - AMPATH staff
- Forms for data collection
- IRB review- pending

Acknowledgements

- Dr. Dennis Orentia
- Dr. Adrian Gardner, Team Leader '06-07
- Selina, nurse in Room 50, AMPATH
- Laboratory Staff, Mycobacteriology Reference Lab, AMPATH Center
- Medical Staff (MOs, Nursing, COs, cough monitors) of the Nyayo wards, AMPATH center, and the Chest Clinic
- Dr. Bobbi VanderPol, Indiana University
- Dr. Cathy Petty, University of Utah