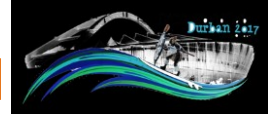




# Implementing Value Based Laboratory Testing



## AA Khine-Wamono

IFCC Committee on Clinical Laboratory Management  
<http://www.ifcc.org/ifcc-education-division/emd-committees/c-clm/>

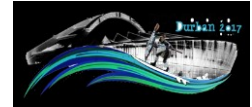
**Symposium on Improvement in Clinical Laboratory Services:  
 Approaches to Adding Value**

IFCC WorldLab Durban  
 Durban International Convention Centre  
 Durban, South Africa - October 25, 2017

1



# Background



- Healthcare funding is in constraint yet the need for access to quality laboratory services is maintained
- Laboratory service is essential to care but does it in fact add value to the patient?
- Definition of value in this context – access to lab testing, results useful for patient management (correct test, correct result and timely)
- Financially sustainability (lab and user are inseparable)
- Laboratory looks after its own budget as well as the customer's budget and is responsible for own efficiency and customers'

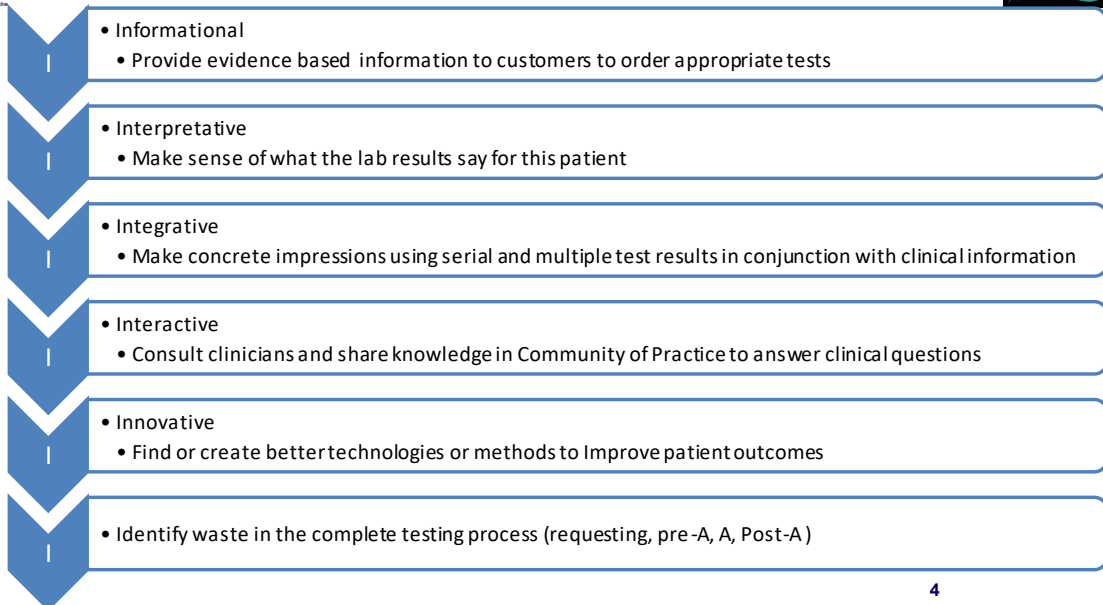
2

# Critical questions



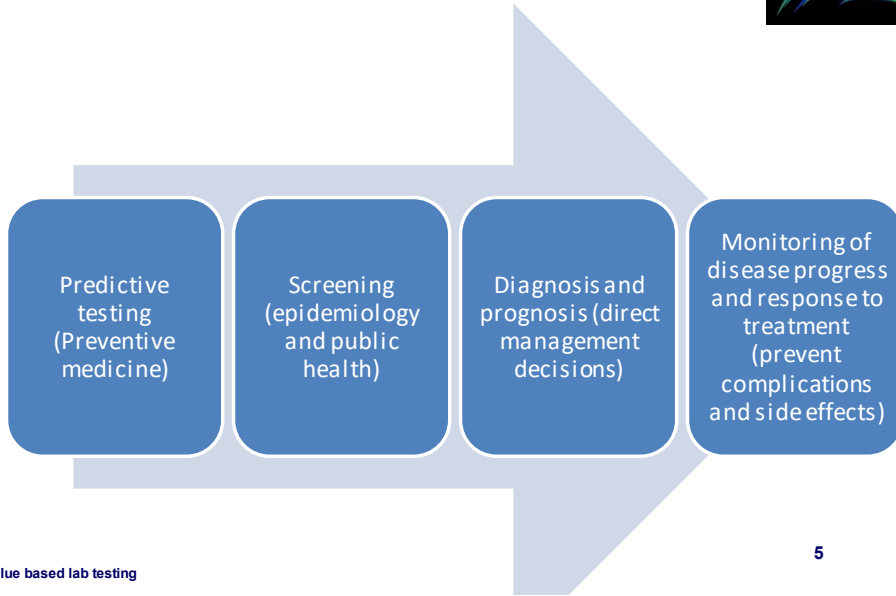
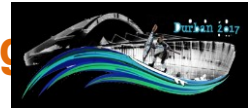
- Do you think of your lab as a business?
- Do you run your lab as a business?
- Do you believe your lab provides value?
- Does your existence add value in service to convince practice administrators that it needs to stay in-house within the facility?
- Do you have a proposal or document to show your lab's value for your customers?

## Role of laboratory in patient care



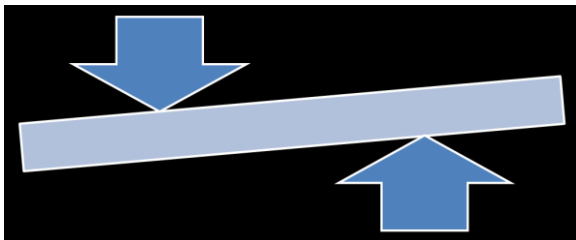
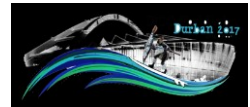
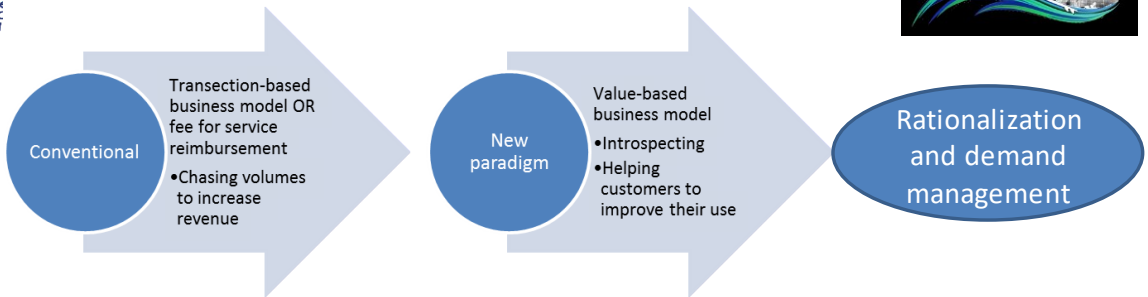


# Value chain of laboratory testing



AA Khine/Implementing value based lab testing

5



AA Khine/Implementing value based lab testing

6

## How to keep customer's efficiency



### Eliminate Waste To-do List

- Determine scenarios that justify expensive tests.
- Eliminate obsolete testing, such as bleeding times.
- Reduce non-value added testing. Providers waste time explaining why a patient's Chloride is 99.
- Create testing formularies.
- Develop algorithms, sequential protocols.
- Provide peer-to-peer data.

AA Khine/Implementing value based lab testing

7

## Some causes of inappropriate test requests



- Large test menu and many available on the request form
- Inconsistencies in test names
- Lack of clarity on testing guidelines
- Poor training of MDs in Laboratory Medicine during undergraduate years
- Lack of knowledge in how laboratory functions, phlebotomy requirements and pre-analytical factors
- Growth of specialized tests including genetic screening and polymorphism testing

Ref: [www.cdc.org](http://www.cdc.org)

AA Khine/Implementing value based lab testing

8

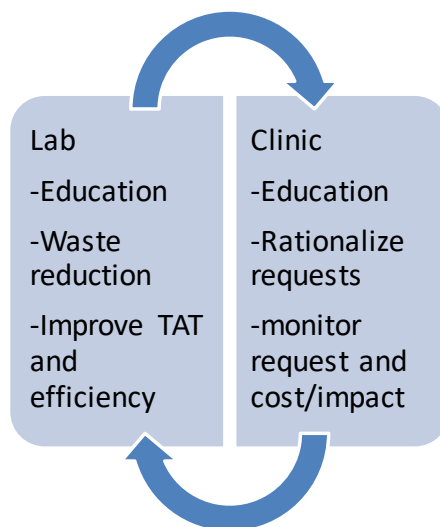
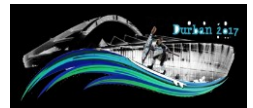
## continued



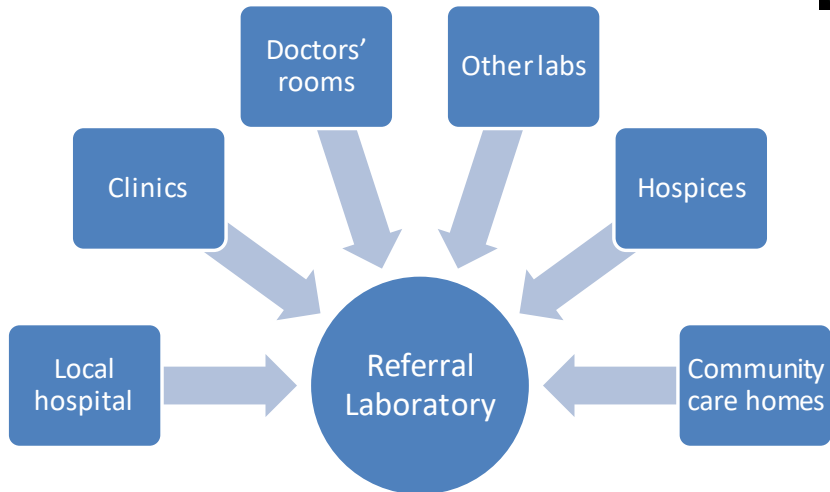
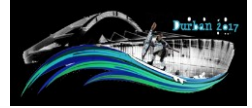
- Unaware of electronic gate keeping implementations and rules therein
- Poor understanding of interval of testing (when to repeat the test)
- Lack of awareness in cost implications
- Does not communicate with colleagues and the laboratory

Ref: [www.cdc.org](http://www.cdc.org)

## Value-based laboratory testing



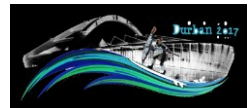
## Implementation-Scope of VBLT



AA Khine/Implementing value based lab testing

11

## Major Obstacles

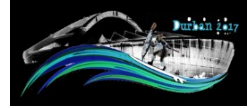


- Weakness in the lab and clinical interface
- Lack of education by both laboratory staff and lab users
- Software availability and funding for automation
- Solutions and approaches depend on the local context
- Knowledge level, attitude, culture, IT solutions

AA Khine/Implementing value based lab testing

12

# Generic Strategies



- Survey your catchment area
- Building relationships outside the laboratory environment with users
- Establish testing algorithms through consultation with clinicians
- Pay attention to local requirements, available budget and disease trends (statistics and priorities of health programs driven by national government)
- Educate all lab users and clinical managers
- Change management and training of laboratory staff

## Strategies continued- demand management



- Electronic gate keeping- can be standardized
- needs consensus for pre-set rules based on the preliminary data
- A pilot project to select a few areas of testing is recommended
- Rules for revoking
- Although electronic, training of users and lab staff cannot be underestimated

## Complementary to EGK



- Self-requesting software interfaced with LIS
- Electronic alerts for inappropriate tests selection
- Electronic suggestion of appropriate level of testing could be explored
- Prompts for further testing based on the abnormal results or on the particular trend of results also could be looked at

## Basic requirement before implementations



- Establishment of technical working group within the stakeholders (public and private sector laboratories, hospitals, health care funders and community representatives and needless to say, the pathologists, lab managers and clinical staff)
- Lab-clinical interactions/relationships at higher level as well as at grass root level





## Monitoring and Evaluation



- Monitoring the activities of electronic platforms is prudent
- Evaluation of whether such implementations have actually realized the value added to the patient outcome would be a paramount for justification of the larger rollout
- This can be done as case studies in selective clinical scenarios
- Strong lab-clinic interface defines success of implementation as well as monitoring of these activities

AA Khine/Implementing value based lab testing

17



## Some approaches that have been tried in the United States

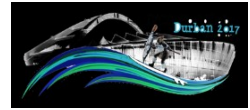


- *Place limits of requests on house staff (interns) orders*
- Provide information on test costs
- *Requisition design*
- Electronic warnings and reminders
- Education
- Incentives

AA Khine/Implementing value based lab testing

18

# Summary



- Value based laboratory testing aims to improve access and quality for patient care more than just cutting costs
- It starts within the laboratory and is driven by people in the lab-clinical interface
- it is based on the symbiotic (inter-dependent) relationship from inception, strategies, implementation through to monitoring and corrective actions
- Risk assessment and mitigation should be done rather before implementing and as ongoing basis

# References



- [www.who.int/ihr/lyon/surveillance](http://www.who.int/ihr/lyon/surveillance)
- Hamill, T (2013). Laboratory Test Utilization: The Good, the Bad and the Overused. UCSF Clinical Laboratories
- Adding value to laboratory medicine: a professional responsibility. Clinical Chemistry and Laboratory Medicine. 2012. 51, 1, 221–227
- Kim Futrell (2013). Value in laboratory testing. ASCP
- [www.arup.utah.edu](http://www.arup.utah.edu)