

MTN REGIONAL MEETING
LABORATORY BREAKAWAY

Building a healthy nation through research

**DO YOU HAVE
CHEMISTRY?**

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HIV PREVENTION RESEARCH UNIT

MTN REGIONAL MEETING

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South African Medical Research Council

BUILDING A HEALTHY NATION THROUGH RESEARCH



IN A NORMAL WORLD-DEFINITION OF CHEMISTRY



NETWORK LAB PEOPLE WHO HAVE CHEMISTRY



LORNA

TED

WAYNE

URVI



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THE ABCs OF CHEMISTRY SET-UP

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C= COMPATABILITY

H= HOW DID I GET MYSELF INTO THIS?

E= EQUIPMENT & EQA

M= MONEY/METHOD VALIDATION

I= INSTALLATION

S= STAFF/SOPs/SUPPLIER

T= TIMELINES


R= RESULTS

Y= YOU GOT TO BE PATIENT!




CHALLENGES WHEN YOU JUST DON'T HAVE 'CHEMISTRY'

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Problem	What Happened?	Resolution
<p data-bbox="111 408 540 458">Supplier challenges</p> 	<p data-bbox="727 408 1265 836">Calibration Disc – every new generation reagent requires a Supported cal disc to be loaded onto analyser – Cal disc was not sent on time by supplier -</p>	<p data-bbox="1342 408 1918 1022">Resolution – Bench med techs trained to review all new stock received note new lot nos , check if new generation sent , Lab Co-ord – regularly checks Vitros ortho website for distribution of new discs and ensures that supplier sends disc to central lab.</p>

CHALLENGES WHEN YOU JUST DON'T HAVE 'CHEMISTRY'

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Problem	What Happened?	Resolution
<p data-bbox="20 349 466 392">Supplier challenges</p> 	<p data-bbox="687 349 1363 771">Supplier not very knowledgeable on instrument - noted during training and when experiencing troubleshooting issues – of bench staff.</p>	<p data-bbox="1363 349 2034 1342">Resolution staff have read user manuals , Co-ordinator reviews troubleshooting log to ensure that corrective action or schedules for calibration etc are put in place , experience on machine has capacity developed staff to be more vigilant with maintenance , calibration frequency , control review LJ graphs. Troubleshooting log – also assists as a tool to identify areas for training and review competency</p>

CHALLENGES WHEN YOU JUST DON'T HAVE 'CHEMISTRY'

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Problem	What Happened?	Resolution
<p data-bbox="95 454 526 505">Supplier challenges</p>  A cartoon illustration of a man in a blue suit and glasses running quickly. He is holding a calculator in his right hand and a stack of papers in his left. The background behind him is a yellow glow with radiating lines, suggesting speed or urgency.	<p data-bbox="712 454 1288 945">Reagent availability challenges – Supplier does not have any other Vitros350 in KZN – hence stock ordered from manufacturer when ordered placed by Central lab –</p>	<p data-bbox="1330 454 1790 568">Resolved – 2 months stock kept on hand.</p>

CHALLENGES WHEN YOU JUST DON'T HAVE 'CHEMISTRY'

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Problem

What Happened?

Resolution

Controls




– initially supplier recommended Verifier 1 and 2 (Vitros controls) for use , however noted stability issues as controls had to made up ,

Resolution : Network lab recommended Biorad Unassayed Liquichek 1 and 2 Controls – available as frozen ready to use controls – minimizes errors with reconstituting , noted that this control is more stable . Biorad Controls in use presently.

CHALLENGES WHEN YOU JUST DON'T HAVE 'CHEMISTRY'

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Problem	What Happened?	Resolution
<p>Validation</p> 	<p>Initially did a wet v.s .dry chem. Validation - correlation was poor for most analytes e.g. creatinine– then proceeded after negotiation with another customer in PE using the Vitros350 - to set up a validation – challenges here where limited analytes run by ref lab , time delay in receiving samples from PE</p>	<p>PE correlation was much better with our lab Also discussed these challenges with SMILE – Approved validation based on the no of CAPS Surveys run-which was 100% from 2010 to 2011</p>

CHALLENGES WHEN YOU JUST DON'T HAVE 'CHEMISTRY'

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Problem

What Happened?

Resolution

Staff Competency




Staff competency initially poor , poor understanding of review of LJ graphs , handling of reagents and controls.

Resolution : trained staff on observing for bubbles in CAP , bench organization , instituted trouble shooting , calibration log , control review log - this has assisted greatly with understanding instrument and staff being more aware of Westgard Rules and reviewing of LJ graphs , staff aware of thawing out times etc..

CHALLENGES WHEN YOU JUST DON'T HAVE 'CHEMISTRY'

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Problem	What Happened?	Resolution
Interphase with LIMS 	Supplier not knowledgeable on interphasing- problems with LIMS and supplier differences on how to implement	Currently communication could not be established – 3 days arranged with supplier

MY LAB FAMILY

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SOUTH
AFRICAN
MEDICAL
RESEARCH
COUNCIL

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THANK YOU
ANY QUESTIONS?