ANTIMICROBIAL STEWARDSHIP IN PRIMARY HEALTH CARE WESTERN CAPE GOVERNMENT: HEALTH METRO DISTRICT
FINDINGS 6 MONTHS AFTER INITIATION

2018 IHI Africa Forum for Quality and Safety in Healthcare

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Durban, South Africa

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Background

• Antimicrobial resistance is a global problem
• Approximately 700 000 people die yearly because of resistant bacteria. Number will increase...
• Approximately 80% of Antibiotic prescriptions in humans happen in PHC
• SA NHLS data shows an increase in Antibiotic resistance in SA
• Antimicrobial stewardship activities in the WCGH
  • Committee
  • Goals / TOR
  • Research
• Hospital and specialist focus
• What is happening in PHC?

80% of Antibiotics are prescribed in PHC (human consumption)
Background (Situational Analysis)

• UK NHS Fellow: Julia Gasson
• Designed a Cross sectional study – retrospective medical record review
• Aim: Outline and assess current antibiotic prescribing practice within primary care facilities of Cape Town Metro District.
• 8 facilities
  • Representative (districts, income, clients etc.)
  • Randomly selected after stratification
• Folders reviewed (Antibiotic prescriptions – adherence to prescription prescribed correctly AND not prescribed correctly.
• 2 full days’ Antibiotic prescriptions per facility
• Chronic Antibiotic (TB, Prophylaxis) excluded
• Protocol & Ethics approval & Provincial approval
Results – adherence to Essential Medicines List (EML) - baseline

• Total number of folders reviewed:
  • 2771
  • 2 days at each of 8 facilities
• Acute problem: 891
• Acute problem with infection / potentially infection: 658 (4 excluded)
• Overall (n=654):
  • Not adherent: 54.7% (95%CI 50.9 to 58.5)
  • Adherent: 45.3% (95CI 41.5 to 49.1)
• Prescriptions only (n=449):
  • Non adherent – 67.93% (95% CI 63.45 – 72.1)
  • Adherent – 32.07% (95% CI 27.9 – 36.55)
Action! Planning (Pilot)

- Situational analysis results inspired us to do something
- What? How?
- Multidisciplinary team
- Clinician lead (Family Physician)
- QI AIM: To improve antimicrobial prescription adherence to guidelines in Western Cape Government Health PHC facilities in the Cape Town Metro district from a baseline of 45% to 80% by July 2018.
- Testing in one facility
- Change idea: Audit & feedback (with a few other change spin offs)
- Protocol, ethics committee & provincial research committee approval
- Pilot successful. Gradual increases in adherence to guidelines
<table>
<thead>
<tr>
<th>Patient folder number</th>
<th>1</th>
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<td>Prescriber</td>
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<td>Allergies documented?</td>
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<td>Correct antimicrobial for diagnosis according to EML / PACK?</td>
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<td>Antimicrobial name(s)</td>
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<td>Dose correct?</td>
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<td>Frequency correct?</td>
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<td>Route correct?</td>
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<td>Duration correct?</td>
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<td>Prescription validated*</td>
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Grand total out of 10

* Use addendum for notes to indicate why a score of No was given.
* Name, signature and registration number of clinician, with date, documented.
* Score 1 if Yes to ALL; score 0 if No to any of criteria.
Expansion to other facilities

• Reasonable success at pilot facility. Would be unethical to wait?
• 13 other PHC facilities invited
• Governance by Family Physicians (PCGC forum)
• Main change idea – audit and feedback
• May add other change ideas systematically
• Some facilities make significant improvements
• Others don’t have data to submit
• Data captured and ‘total progress’ calculated
Insert: Student involvement

• Bright eyes, fresh start, want to change and improve
• Final year students have to do QI as part of their PHC rotation
• 2 students rotated at one of the participating PHC’s for 5 weeks
• Facility went form not participating at start (data not submitted yet) to 20% at first audit, 70% correct in the last week.
• Students learn while improving
• Facilities want students
• Students are happy
• Students want to do more of the same
Antibiotic Stewardship Programme

Nhlakanipho Mahagane
Adriel Moodley
The END OF HUMANITY?
Nuclear Apocalypse?
More Realistically
How?

- A combination of both **BEHAVIOUR MODIFICATION** and **PROCESS CHANGES** will be tested

  - **Behavioural** – Education and emphasis
  - **Process** – Ensuring either **hampering** occurs to **force behavioural change** or **streamlining** to **reduce effort** on prescribers end
Root cause analysis

Equipment
Validation stamps
Some prescribers don’t have their own

People
Doctors
Not prescribing appropriately
Prescribing Nurses
Not prescribing appropriately
Pharmacist
Not checking if scrips are valid

Environment
High patient load, limited time means not always remembered

Poor adherence to the Antibiotic Stewardship Programme
Phase 1 – Jan 17\textsuperscript{th} to 23\textsuperscript{rd}
MASTERS:

Attention: AC Moodley - 079 262 0332
17559537@sun.ac.za

1. Wooden Stamp 40mm x 15mm @ R98.00

Please check stamps for correctness. Any mistakes found after confirmation will be at the customer's own expense.

Price(s) Include(s) Vat

Quote accepted:

Sign:........................................... Name:........................................... Date:...........................................
Student project results (one facility)

Number of randomly audited folders (total of 40 folders audited per column)

Pre-intervention cycles | Post intervention cycles
Surprize!

Nhlakanipho Mahagane reflecting on his experiences
Initial cross sectional study showed 45% of prescriptions adhered to guidelines

Start of expansion to more facilities
Future developments

• Continue with audits – speed up cycles (weekly?)
• More changes (facility driven) shared among each other
• Share progress (Family Physician Forum, Rational Medicine use Forum)
• Development of a facility measure e.g. Defined Daily Dose measurement per standardized denominator.
• Understand how we can get other facilities to join
• Pharmacists involved
• Longer term outcome measure has to be identified
Conclusions / Learning

• Preliminary results
• Only participating facilities (not the average in the province, but average of participating facilities)
• Improvement possible with minimal input
• Something to measure and improve can increase job satisfaction / gratification
• Multidisciplinary team all working together to improve patient care
  • Less compartmentalization
  • Discussions around a topic – increased knowledge
• Quote from students: “Many small and correct actions can have profound long term impacts”
• Technical vs adaptive solutions
Contact Us

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Bibliography on next slide
Bibliography


