Non-communicable disease research
Division of Family Medicine and Primary Care
Prof Bob Mash
NCD morbidity in primary care

Primary care morbidity study: Diagnosis

Quality improvement studies
Audit of chronic diseases: Diabetes

Elma de Vries, Angela de Sa, Katy Murie, Sedi Namane, Srini Govender, Arina Schlemmer, Colette Gunst, Indira Govender, Unita van Vuuren, Werner Viljoen. Auditing chronic disease care: does it make a difference? 15th National Family Practitioners Conference 11-12 May 2012
Appreciative inquiry and diabetic care in the MDHS

An ongoing inquiry process

Principles of appreciative inquiry

- In every organisation something works!
- What we focus on becomes our reality
- People have more confidence and comfort to journey to the future (the unknown) when they carry forward parts of the past (the known)
- If we carry parts of the past forward, they should be what is best about the past
- It is important to value differences

Audit of chronic diseases: Diabetes

Elma de Vries, Angela de Sa, Katy Murie, Sedi Namane, Srini Govender, Arina Schlemmer, Colette Gunst, Indira Govender, Unita van Vuuren, Werner Viljoen. Auditing chronic disease care: does it make a difference? 15th National Family Practitioners Conference 11-12 May 2012
Screening for diabetic retinopathy: 2009

Prof Bob Mash, Family Medicine, SU
Di Powell, Eye care programme, MDHS
Unita van Vuuren, Chronic diseases, PGWC
Mobile retinal photography

- Mobile retinal camera
- One technician
- Screen 40 people / day
- Screen 9,600 / year
- High sensitivity and specificity
- No dilatation needed
- Telemedicine
Grading of retinopathy (n=329)

Management plan (n=400)

- Other specialist care: 4.3%
- Laser treatment: 7.2%
- 6-month review: 12.5%
- Annual review: 41.2%
- Repeat photograph: 7.8%
- Referred for cataract: 27.0%

Quality improvement cycles and adherence studies: 2011

- Cardiac failure – Elsies River – Dr Cornoc
- Diabetes – Macassar – Dr Lomas
- Diabetes – Graaf Reinet – Dr vd Merwe
- Asthma, gout, thyroid – Somerset West – Dr Hobson
- Hypertension adherence – Botswana – Dr Udeh
- Diabetes adherence – Bishop Lavis – Dr Booysen
Knowledge translation and health services research
Point of care screening for microalbuminuria – Dr Ibrahim MMed research assignment

- 11.7% macroalbuminuria (100% tested)
- 15.2% microalbuminuria (56% fully tested)
- All diagnosed with microalbuminuria received intervention (ACE inhibitor and education)
- Additional cost required to screen a cohort of 100 patients was R11 per patient
- Additional cost required to treat a patient for 1 year was R80
- Additional cost of treating a patient for 1 year with dialysis was R120000
Use of glycosylated Hb (HbA1c) and random glucose in decision making – Dr Daramola MMed research assignment
Effect on clinical decision making

Out of 100 patients seen in the outpatients

16 that are poorly controlled will be missed and have a RBG less than 9.8 mmol/l.

7 will be well controlled and have a RBG greater than 9.8 mmol/l.

Overall 23 out of every 100 patients seen will be wrongly assessed

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>77%</td>
</tr>
<tr>
<td>Specificity</td>
<td>75%</td>
</tr>
<tr>
<td>Positive predictive value</td>
<td>0.88</td>
</tr>
<tr>
<td>Positive likelihood ratio</td>
<td>3.08</td>
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<tr>
<td>Prevalence of poor control</td>
<td>70.8%</td>
</tr>
<tr>
<td>Pre-test odds</td>
<td>2.42</td>
</tr>
<tr>
<td>Post-test odds</td>
<td>7.45</td>
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<tr>
<td>Post-test probability</td>
<td>88.2%</td>
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</table>
Asthma guideline implementation project

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Target</th>
<th>Western Cape province</th>
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</thead>
<tbody>
<tr>
<td><strong>Process</strong></td>
<td></td>
<td></td>
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<tr>
<td>Patients with a consistent diagnosis of asthma (%)</td>
<td>95</td>
<td>80.0</td>
</tr>
<tr>
<td>Routine visits with an assessment of asthma control (%)</td>
<td>80</td>
<td>11.5</td>
</tr>
<tr>
<td>Patients with written self-management plan (%)</td>
<td>80</td>
<td>11.2</td>
</tr>
<tr>
<td>Routine visits where the PEFR was recorded (%)</td>
<td>80</td>
<td>23.2</td>
</tr>
<tr>
<td>Patients with an assessment of inhaler/spacer technique (%)</td>
<td>95</td>
<td>14.0</td>
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<tr>
<td>Patients with record of smoking status (%)</td>
<td>95</td>
<td>30.7</td>
</tr>
<tr>
<td>Controller/reliever ratio</td>
<td>&gt;0.5</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patients who are totally/well controlled (%)</td>
<td>70</td>
<td>31.5</td>
</tr>
<tr>
<td>Patients who can explain the difference between reliever and controller (%)</td>
<td>80</td>
<td>60.8</td>
</tr>
<tr>
<td>Proportion of all visits for asthma emergencies/exacerbations (%)</td>
<td>&lt;10</td>
<td>16.3</td>
</tr>
<tr>
<td>Patients who have been hospitalised (%)</td>
<td>&lt;5</td>
<td>17.6</td>
</tr>
</tbody>
</table>


Mash B, Rhode H, Pather M, Ainslie G, Irusen E, Bheekie A, Mayers P. Evaluation of the asthma guideline implementation project in the Western Cape, South Africa. Current Allergy & Clinical Immunology, 2010; 23(4): 154-161
Table III. Ten recommendations to improve asthma care

1. Train practitioners to distinguish between asthma and COPD and understand their different assessment and management. An AGIP desktop manual supports this decision making.
2. Train practitioners in how to assess the control of asthma.
3. Routinely provide all asthma patients on inhaled steroids with a valved spacer.
4. Make PEF meters and reference charts easy to order and available and ensure that they are available in the emergency room. A PEF meter should be available to every practitioner in their consulting room.
5. Include placebos in the provincial pharmaceutical catalogue and make them available through the pharmaceutical depot.
6. Consider the addition of dry-powder devices to the provincial pharmaceutical catalogue.
7. Provide practitioners with placebos, spacers, DVDs and the expertise they need to assess and demonstrate inhaler technique.
8. Consider making LABAs more accessible in the district health system via family physicians.
9. Improve patient education programmes by providing materials for use at individual and group level, in all local languages and available in a sustainable way through official channels.
10. Have at least one person in the facility with a specific long-term responsibility for the organisation and delivery of chronic care for non-communicable diseases.
Bridging the gap between clinical research evidence and practice. Implementing the South African National Evidence-Based Asthma Guideline in Private and Public Practice in the Cape Metropole.

Dr Michael Pather PhD study
Behaviour change counselling

Motivational interviewing
Motivational interviewing

**KEY POINTS**

Simply giving patients advice to change is often unrewarding and ineffective.

Motivational interviewing uses a guiding style to engage with patients, clarify their strengths and aspirations, evoke their own motivations for change, and promote autonomy of decision making.

You can learn motivational interviewing in three steps: practise a guiding rather than directing style; develop strategies to elicit the patient’s own motivation to change; and refine your listening skills and respond by encouraging change talk from the patient.

Motivational interviewing has been shown to promote behaviour change in various healthcare settings and can improve the doctor-patient relationship and the efficiency of the consultation.

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Effectiveness of a group diabetic education programme using motivational interviewing in underserved communities in South Africa: Pragmatic cluster randomized control trial

Bob Mash, Dinky Levitt, Krisela Steyn, Merrick Zwarenstein, Hilary Rhode
Design of intervention

- 4 sessions as recommended by AI process
- Delivered by the Health Promoter
- With a guiding communication style
- Using resources adapted from the *Conversation Map Kit*’s and existing diabetic material for patients
- 2 hour sessions on day of usual appt
Results soon…

- Qualitative study of HPO experience
- Qualitative study of patient experience
- Evaluation of fidelity to the intervention
- Final results of the RCT
Future work...

Motivational interviewing for beginners

24th-26th July
Stellenbosch University
Tygerberg Campus
Cape Town

This short course is aimed at developing beginning proficiency in motivational interviewing. Motivational interviewing is an approach to helping people with behaviour change. This short course is aimed at health workers and health related behaviour change e.g. adherence, sexual behaviour, physical activity, smoking, substance abuse, healthy eating.

Participants should commit to attend the initial 3-day workshop and at least 3 of the 4 half-day follow up sessions (24th, 25th, 26th and 29th August) to fully integrate the training into their practice. A Certificate of Competency from Stellenbosch University will be awarded to those who complete the whole course and demonstrate their ability in motivational interviewing.

The workshop will be offered by Bob Mash, Loren Human and Debbie Bell who are all experienced trainers in South Africa and members of the International Network of Trainers of Motivational Interviewing.

The cost of the course is R4900.

To apply for the course please complete the attached application form and return to Ms Nannilia Griggs in the Division of Family Medicine and Primary Care

Dr Zelra Malan PhD study

The development, implementation and evaluation of a training intervention for primary health care providers on brief behaviour change counselling: 5As and motivational interviewing

- Ask
- Alert
- Assess
- Assist
- Arrange
Thanks
rm@sun.ac.za