Drug Shops and integrated management of childhood illnesses: appropriateness of care and adherence to treatment protocols

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RDT – private sector consultative meeting
Entebbe, 21.10.2015
Quality health care at drug shops

Technical competence
Studies I, II, III

Effectiveness
Studies I, II, III

Efficiency

Safety

Interpersonal relations
Studies I

Access to services
Studies I & II

Equity
Studies I & II

Continuity/referral

Conceptual framework showing the dimension of quality in health care addressed in the studies in this thesis – Adapted from WHO dimension of quality framework
Specific objectives

1. To determine the role of drug shops in management of childhood illness and the appropriateness of care they provide

2. To determine the effect on quality of care, of introducing diagnostics and pre-packaged paediatric drugs for malaria, pneumonia and diarrhoea at private sector drug shops

3. To determine the level of adherence by drug shop attendants to the iCCM treatment protocol
Integrated community case management of malaria, pneumonia and diarrhoea (iCCM)

- Promoted by WHO/UNICEF
- 2010 iCCM policy in Uganda
- Scale up through CHWs across Africa in public sector
- No similar private sector intervention
Studies and publications


Results

Adherence to the malaria treatment protocol

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Children</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All visits</td>
<td>7667</td>
<td></td>
</tr>
<tr>
<td>Fever</td>
<td>6140</td>
<td>80%</td>
</tr>
<tr>
<td>Fever &amp; RDT</td>
<td>5986</td>
<td>98%</td>
</tr>
<tr>
<td>RDT positive</td>
<td>5307</td>
<td>78%</td>
</tr>
<tr>
<td>RDT positive &amp; ACT</td>
<td>4961</td>
<td>94%</td>
</tr>
</tbody>
</table>
Adherence by drug shop attendants to pneumonia treatment guidelines

- All visits: 7667
- Respiratory rate assessed: 5203
- Fast breathing diagnosis: 3437
- Received amoxicillin: 3126

- Number of children
- All visits: 7667
  - Respiratory rate assessed: 5203
    - Fast breathing diagnosis: 3437
      - Received amoxicillin: 3126

- Percentage adherence
  - All visits: 68%
  - Respiratory rate assessed: 66%
  - Fast breathing diagnosis: 91%

- Number of children
  - All visits: 7667
  - Respiratory rate assessed: 5203
  - Fast breathing diagnosis: 3437
  - Received amoxicillin: 3126
Adherence by drug shop attendants to diarrhoea treatment guidelines

- All visits: 7667
- Diarrhoea: 2335 (31%)
- Diarrhoea + ORS/Zinc: 2068 (89%)
Ethical considerations

- Potential ethical risks in this study included:
  - Drug shop attendants may not carry out diagnostics tests properly
  - Poor disposal of sharps and blood stained items
  - Promotion of utilization the private sector at the expense of public sector

- Risks mitigated through training, support supervision, community awareness, subsidized drugs
Additional lessons learned

• Pricing and quality control: Early negotiation with drug sellers on pricing and standards is paramount
• Supervision: Use of the district drug inspector
• Support supervision important
• Data collection and management: data reported to district statistician and integrated into HMIS
Conclusions

- The majority of parents seek care for febrile children in the private sector, mainly comprising of drug shops, where the management of malaria, pneumonia and diarrhoea is largely inappropriate - **Paper I**

- Introduction of the iCCM intervention at drug shops in rural Uganda resulted in high levels of appropriateness of care for malaria, pneumonia and diarrhoea in children - **Paper II**

- There was also high adherence to the iCCM treatment protocols by the drug shop attendants - **Paper III**
Policy recommendations

1. Quality of care for children with malaria, pneumonia and diarrhoea can be considerably improved by extending the iCCM strategy to drug shops in Uganda.

2. As with the public sector iCCM interventions, a subsidy is necessary in the private sector to ensure affordability for the majority of patients.

3. For ease of implementation, consider including a limited number of dedicated drug shops per village.

4. Scale up could be done in a step-wise fashion to allow for strong assessment of the effect of intervention.
Acknowledgements

- Mothers, caretakers, guardians, children and drug shop attendants who participated in the studies
- The district drug inspectors and district health teams in Kaliro, Kamuli, Mbarara and Bushenyi districts
- Field supervisor and data collectors
- Dept. of Community Health, Makerere University College of Health Sciences, School of Public health
- Uganda Ministry of Health
- Einhorn Family Foundation
- Medicines for Malaria Venture