

Resource April 13, 2011

Reducing prescription of Antimalarials to smear negative patients

Problem:

Butebo Health centre IV is a rural health unit in Pallisa District in Eastern Uganda in East Africa. Malaria remains the leading cause of morbidity and mortality in Uganda and accounts for 41% of deaths in children under 5 years of age,

30-50% of inpatient admissions and over 50% of OPD attendance. Some of these deaths can be prevented if children receive effective treatment for malaria within 24 hours of onset of fever. Despite the high mortality rates the country

has an acute shortage of resources. In most health units, there is a constant stock out of essential drugs especially antimalarials. Some of these stock outs are not only due to insufficient drug supplies.

To establish other causes of stock outs a quality improvement team was formed in Butebo health center IV. After assessment of several prescriptions, it was noted that majority of patients with fever were getting antimalarials despite

the Blood smear microscopy results (Baseline-85% of smear negative patients received antimalarials in June 2010). An indicator was thus developed to reduce proportion of smear negative patients getting antimalarials. The expected

outcome was reduced stock out of antimalarials, hence increased availability of drugs for patients who truly need them (37% at baseline).

The following were identified as root causes

- Poor prescription habits due to inadequate patient evaluation by clinicians
- Late coming by staff leading to hurrying and no quality time given to patients
- Due to inadequate staffing, nurses and nursing assistants were also prescribing and could not confidently rule out malaria in smear negative patients.

Intervention:

The team introduced the following **improvement changes** which were found to be effective in improving prescribing.

- General staff meeting to address late coming among staffs
- Meeting with clinicians to discuss problem of irrational prescribing

- Developing and use of Job Aids on treatment of fever with a negative B/S
- CME to equip nurses and nursing assistants with knowledge and skills on rational prescribing and management of fever with Negative B/S
- Introduction of an effective triage system for patients with fever
- Periodic monitoring of the indicator by the Quality Improvement team

The changes were introduced over an 8 month period (June 2010 to February 2011). Effective changes were adopted as new changes were introduced at the end of every review period (1 month).

Results:

Prescription of antimalarials to smear negative patients dropped from 85% in June 2010 to 36% in February 2011 (Target was 20%), there was a spike to 64% in January due to new clinical officer who was posted to the unit, but after orientation on the QI process prescribing improved.

Objective: To reduce percentage of smear negative patients treated with antimalarials to <20%								
Month	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Indicator value (%)	85	43	41	35	43	46	36	64

Outcomes

There was a marked increase in availability of first line antimalarial (Artemether/Lumefantrine), from 37% (January-June 2010) to 68.5% (July 2010-February 2011).

Lessons:

Challenges

- Inadequate staffing continues to hinder quality of service delivery. This has led to nurses carrying out the role of clinicians. Having one laboratory technician to examine over 50 smears per day on top of other tests compromises

quality of the results and hence poor prescribing.

- Poor attitudes and motivation of health workers greatly affects service delivery as it hinders behaviour change.

Lessons learnt

- Health care improvement requires continued efforts to sustain improvement changes
- Involvement of all health workers (Team work) remains an essential component of health care improvement
- Some areas of health care can be improved even without additional resources and can easily be adopted in resource limited settings
- Where resources are limited, there should be a deliberate effort by all stakeholders to minimize wastage

Nurses if given adequate knowledge on prescribing practices can improve prescribing in understaffed areas

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