The Impact of Control of Diarrhoeal Diseases at Kamuzu Central Hospital, Lilongwe

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Introduction:
The control of diarrhoeal diseases (CDD) programme became fully operational in Malawi during 1985, when oral rehydration (ORT) units were established in all hospital out-patient departments, and steps taken to integrate ORT into the activities of all health facilities.

Prior to this, in July, 1984, an ORT training centre was established in the out-patient department of Kamuzu Central Hospital, in Lilongwe, the Capital City, and the use of ORT in the paediatric ward was intensified, to serve as a model for the rest of the country.

Targets of CDD Five year Plan
The targets of the present CDD five year plan in Malawi (1984-1989) include:
- offering effective out-patient and in-patient diarrhoeal diseases treatment
- educating mothers about ORT
- decreasing hospital admissions from diarrhoeal diseases
- decreasing hospital case fatality rates from diarrhoeal diseases.

Kamuzu Central Hospital ORT Centre
Kamuzu Central Hospital (KCH) the referral hospital for the Central and Northern Regions of Malawi, has a paediatric ward with 97 beds. The occupancy rate of the paediatric ward is around 200% all year round with children sharing beds.

The greatest number of admissions to the ward is during the months of December to May which coincides with the peak season of diarrhoeal diseases.

Approximately 7% of admissions to the paediatric ward during the years 1981-1983 were for diarrhoeal diseases. The case fatality rate for children hospitalized with diarrhoeal diseases during the years 1981-1983 averaged 5%.

Evaluation of Activities and Impact
At the end of the first of operation of the KCH ORT centre in July, 1985, an evaluation of its activities and impact was undertaken.

The results of this evaluation are shown in figures 1-5.

Figure 1 shows the number of children treated per month from July, 1984 – June, 1985. A total of 1,711 children were treated of which 35 (2%) were hospitalized.

Figure 2 shows the clinical diagnoses of children treated in the ORT centre during this first year. Seventy-five percent of the children had diarrhoea alone, 16% had diarrhoea associated with malaria, 5% with acute otitis media, 3% with vomiting and 1% with measles.

Children with measles are usually admitted directly to the paediatric ward to avoid contagion in the ORT centre. This explains why measles associated diarrhoea was rarely seen at the ORT centre.

Figure 3 shows the age of children treated at the ORT centre: 62% were 0-12 months of age, 26% were between 13-24 months, and 12% were over 24 months of age.

Figure 4 shows the numbers of children admitted to the paediatric ward and the case fatality rates for the years 1981-1985.

Discussion
Admissions due to diarrhoeal diseases from July 1, 1984 to June 30, 1985, decreased by 40% when compared to the mean number of admissions during the years 1981 to 1983.

The percentage of admissions due to diarrhoeal diseases in the paediatric ward decreased from a mean of 7% for 1981-1983 to 4% during 1984-1985 (figure 5).

The case fatality rates (mean per year, 5%) did not change during this first year of ORT activities at KCH perhaps due to the fact that only severely ill children were admitted, milder cases being treated in the ORT centre.

Study of the impact of ORT at KCH is continuing.

National hospital reporting during 1985 showed that there was a decrease in admissions due to diarrhoeal diseases nationwide. This statistically significant decrease is probably the result of the establishment of ORT units in all health facilities in the country.

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Figure 1. CHILDREN TREATED ORT CORNER
KAMUZU CENTRAL HOSPITAL OUTPATIENT DEPARTMENT
LILONGWE, MALAWI JULY 1, 1984 - JULY 1, 1985

Fig. 2. CLINICAL DIAGNOSIS of 1,700 CHILDREN
ORT CORNER
KAMUZU CENTRAL HOSPITAL OUTPATIENT DEPARTMENT
LILONGWE, MALAWI JULY 1, 1984 - JULY 1, 1985

Children with measles are usually admitted directly to the pediatric measles ward to avoid contagion in ORT corner.
Fig. 3. AGE of 1,700 CHILDREN TREATED ORT CORNER
KAMUZU CENTRAL HOSPITAL OUTPATIENT DEPARTMENT
LILONGWE, MALAWI JULY 1, 1984 - JULY 1, 1985

AGE

0-12 MONTHS 12-24 MONTHS Over 24 MONTHS

Fig. 4. CHILDREN ADMITTED & DEATHS DIARRHOEAL DISEASE
KAMUZU CENTRAL HOSPITAL PEDIATRIC WARD
LILONGWE, MALAWI JULY 1, 1981 - JULY 1, 1985

YEARS


Mean total cases per year, 1981-1985 = 382
Mean fatality rate per year, 1981-1985 = 5%
Fig. 5.11 PERCENTAGE PEDIATRIC ADMISSIONS DIARRHOEAL DISEASE
KAMUZU CENTRAL HOSPITAL PEDIATRIC WARD
LILONGWE, MALAWI JULY 1, 1981 - JULY 1, 1985

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