

## **Reviewer's report**

**Title:** Success with antiretroviral treatment for children in Kigali, Rwanda: Experience with health center/nurse-based care

**Version:** 1 **Date:** 12 May 2008

**Reviewer:** nathan ford

### **Reviewer's report:**

Congratulations on a timely and important study. I have one major revision to propose, and a number of minor revisions. These are detailed below. I hope the authors find these comments helpful.

#### Major Revisions

The article describes a very important experience of nurse-based, decentralized pediatric ART care, which is a critical policy debate at the moment. However, the main emphasis is on psychosocial care, which is much better described in the literature (none of which is referenced here) and is not assessed in this study as a specific intervention.

I would strongly recommend that the authors change tack, and place decentralized, nursed-managed care as the main focus. This would be supported by a section that dealt with some or all of the following points (i) health worker distribution in Rwanda (ii) traditional roles of pediatricians, doctors and nurses in pediatric HIV care (iii) adjusted roles according to this programme (iv) measures taken to support these adjustments (additional training/remuneration) (v) acceptability among health workers (nurses are given even more work while pediatricians/doctors concede expertise) and care givers (how did they feel about seeing a nurse rather than a doctor) (vi) the legal and regulatory framework and (vii) sustainability of the model.

All these are major questions for treating adults, let alone children, and this important experience deserves to be placed in the context of this pressing international policy debate.

#### Minor Revisions

##### PAGE 4

'There have been virtually no studies.'

This may be true but cannot be known unless the authors looked for unpublished data.

##### PAGE 6

Change Title 'Sample' to 'Study population'

'Retention of government staff was facilitated by...'

Facilitated by who? Also, better to say 'encouraged' rather than facilitated

'MSF's contribution included...'

The provision of financial incentives by external actors is debated, and so needs a bit more detail including how this fits with later claims that the model is sustainable?

PAGE 7

'...they were able to initiate and change ARV treatment...'

Change for what reason? (tolerability, side-effects, resistance - these require different tests/algorithms)

PAGE 8

'Adequate disclosure and ongoing psychosocial support'

I would question the use of the word adequate - what does adequate mean in this context, and how is disclosure assessed to be adequate vs inadequate?

PAGE 9

'Testing of children was done on a separate day...'

Separate to what?

'Within the child support groups, an environment was created...'

This paragraph falls out of the sky. Why were games, fairy-tales and drawings used? Have they been used effectively anywhere else? Why were these age strata picked? How often did caregivers attend? How much individual follow up occurred? What is the caretaker support group? Overall, there is too much statement and too little detail for this to be meaningful. It requires more justification and referencing.

PAGE 10

'...from mid-2005, the syrup was available at the health centre'. If drug formulation was changed half-way through the cohort, this needs comment in the discussion.

PAGE 14

'We only had complete data on clinical attendance as an indirect measure of adherence to therapy' This is a strange measure of adherence and requires comment in the discussion (virological outcome, a more common proxy measure, could also be contrasted).

PAGE 16

(see also Major comment) The need for nurse-managed care (lack of doctors and pediatricians) and decentralized care (decongestion of services) should be emphasized much more clearly. For example, what is the doctor:patient ratio in Rwanda?

PAGE 17

'The combination of accessibility and acceptability of services and adequate staff'

How was 'accessibility' determined - what was the degree of 'geographical proximity gained by decentralized care? (ie what was the alternative?). How was 'acceptability' gauged, and who is gauging this (doctors? Nurses? Pharmacists? Patients?)

'This could never have been achieved with doctor and hospital-based care'

This comment needs justification.

'This sensitive approach...facilitated early diagnosis'

This is an interesting idea – that taking time for careful psychosocial preparation speeds up time to diagnosis. It warrants a bit more justification.

PAGE 18

'...with few treatment-changing side-effects reported.'

I would suggest using 'severe side-effects' instead

'Virtually all treatment changes were initiated by nurses and confirmed by the physicians'

If nurse-decisions were routinely validated by doctors and agreement measures exist, this would be important evidence to present.

PAGE 19

'...side-effects were documented and treated by the same nurses in our adult cohort, at a frequency similar to other studies.'

This claim relies on the fact that diagnosis of side-effects in adults and children is the same and as such it needs a bit of justification. The authors could also comment on what else may give them confidence that nurses are doing a good job of picking up side-effects (eg specific trainings given to nurses, any checks done by doctors, etc).

'External support of the programme by MSF was targeted at certain areas such as...

Should be more explicit that MSF support was aimed at building capacity rather than staff substitution (at least this is my understanding).

'...MSF is handing over the project in 2007'

Update.

'We believe that the elements required to provide quality pediatric ARV care during scale up'

Again, more careful reflection of the context is require - it is not just ARV provision 'during scale-up' (mega-hospitals full of doctors could help with that)

but rather ARV scale-up in the context of human resource shortages and the need to provide care at the decentralized level.

Points a-e need more thought.

Why is 'suitable clinic space' and 'adequate numbers of staff' specified - aren't these needed by all health care programmes for all interventions? Also, it is difficult to speak here (and elsewhere in the article) about adequate staff when the model described is clearly a response to inadequate staff (doctors/pediatricians). What does 'laboratory backup' mean (what tests, where and when)? Finally, where does 'free ARVs...' come from. Other studies state that this is important, but it comes out of the blue here, without previous reference in the article or reference to the literature.

PAGE 20

'...in effect we were aiming at a "moving target"'

This is the wrong metaphor – the target (needs of children and caregivers) hasn't moved, rather your sights (the development of an adequate response) needed calibrating!

'...adopted children tend to be treated differently...'

In Kigali? Rwanda? The world? This is a complex area that needs more thought and referencing, or should be omitted.

'...increasing problems of acceptance and adherence can be expected in the long run, especially during adolescence'

This is your moving target!

PAGE 21

See above suggestions for additions to the Limitations section (notably adherence measure, and change of drug formulation)

PAGE 22

'...the need for "damage repair" due to misinformation might be less'

Where does this come from? If this is a common problem in other pediatric programmes, then references are required.

'...patients' perceptions and satisfaction were not known...'

Why is this important (in this programme, as opposed to in all programmes, everywhere)?

'Future research'

The replicability of nurse-driven pediatric ART care should be included here.

'...providing ARVs to children in health centres using nurses...'

Here (and elsewhere) the use of the phrase 'using nurses' is jarring (ie it sounds like it was written by a doctor! You wouldn't say that brain surgery 'uses')

neurosurgeons).

Comment should be made somewhere in the Discussion or Conclusion about the role of the pediatrician/doctor in such a programme (managing complex cases, referral, monitoring of quality, supervision, training...hospital-based vs mobile team...etc)

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests