INTRODUCING EVIDENCE-BASED MANAGEMENT OF ACUTE PAIN TO RWANDA: A pilot study

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Objectives

Collect data about management of pain in preparation for implementing evidence-based management of pain at the Kigali University Hospital.

Methods

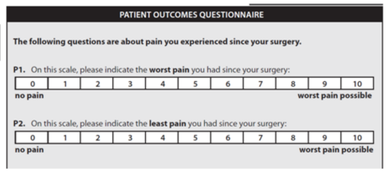
Female patients undergoing caesarean section (C-section) were asked to fill the PAIN OUT *International Pain Outcomes Questionnaire* on the first day after surgery. Clinical data was abstracted from patient's file (see Fig 1).

The Kigali University Hospital is a tertiary medical center, with 500 beds, covering fields such as surgery, internal medicine, obstetrics & genecology; employing >700 healthcare professionals; ~ 2500 surgeries are carried out every year.

PAIN - OUT is an European Union-funded project creating an international registry for acute pain, including tools for feedback and benchmarking of *Patient Reported Outcomes* (www.pain-out.eu).

Analysis was based on descriptive statistics, using SPSS ver 19.

A



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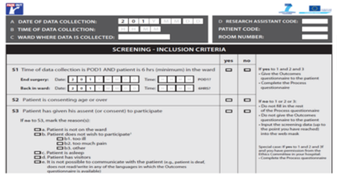


Fig 1. Questionnaires for assessing *Patient Reported Outcomes* [A] and collecting clinical data [B].

Results

Data was obtained from 73 patients, aged (30 ± 6) years old. Patients gave oral assent for participation. 56 (77%) patients filled in the *Patient Outcomes Questionnaire* in French and 17 (33%) in English.

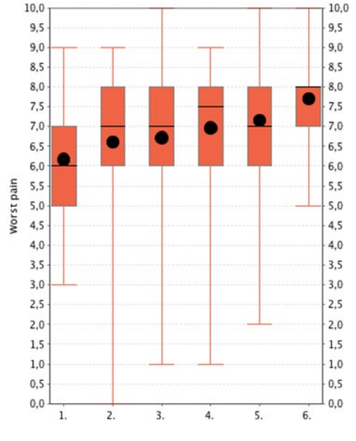
83% (n=63) of patients reported worse pain since surgery of 4\10 and over; 77% (n=56) reported worse pain of 6\10 and over.

26% (n =19) reported that the pain interfered with their sleep moderately to completely. 45% (n= 33) reported that pain interfered with taking a deep breath or coughing moderately to completely.

7 patients (10%) reported moderate to severe (4-10\10) nausea; 10 (14%) reported moderate to severe drowsiness.

In the post anaesthesia care unit, 22 patients (30%) received an opioid (tramadol) and 42 (n=57%) a non-opioid (diclofenac). On the ward, 19 (26%) received an opioid (tramadol) and 54 (74%) a non-opioid (paracetamol, diclofenac , celoxcib).

Fig 2. Summarized data (each box & whisker plot represents data from 1 medical center in the PAIN OUT registry, including Kigali; min of 20 datasets per site; 0 – 10 pain scale) about reports of ‚worst pain since surgery' from women undergoing C-section. The data indicates that severe pain on the first post-operative day after C-section is not un-common.



Discussion & Conclusions

In Rwanda , as is typical of low resource countries, treatment of pain has received little attention so far. However, staff at the Kigali University Hospital are now working with the *Canadian Anesthesiologists Society, International Education Foundation*, *Charite Medical Centre,* Berlin and PAIN OUT to increase awareness about pain, introduce evidence-based management guidelines and collect data about patient outcomes using standardized tools.

Our data show that management of pain in women after C-section is not optimal as patients report severe pain, which interferes with activities such as taking a deep breath and sleeping. Treatment was based on non-opioids & weak opioids, not administered to all patients. Patients after C-section in other hospitals, internationally, also report severe pain.

Work for the coming months will include:
Preparing a program for teaching principles of acute & chronic pain management to staff throughout that hospital and teaching it. Likewise, with patients and families.

Assess the effectiveness of these programs using the PAIN OUT methodology of feedback and benchmarking.

We hope measures such as these will optimize management of pain that patients receive.

Acknowledgement

Funding for this work: (1) FP7 2007-2013. HEALTH-2007-3.1-4 Improving clinical decision making through the project "Improvement in postoperative pain outcome (PAIN-OUT)", Universitatsklinikum Jena, Germany. (2) Kopf et al., Advisory Board Archimedes