



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



Antoine Bahati Kabeza,¹ Martin Nyundo,¹ Andreas Kopf,² Ruth Zaslansky,³ Winfried Meissner³
^{1,2,3} Depts of Anesthesia & Intensive Care, Dept of Surgery, Uni Hospital Kigali, Rwanda; Charite-Berlin & Jena, Germany

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

PATIENT OUTCOMES QUESTIONNAIRE

The following questions are about pain you experienced since your surgery.

P1. On this scale, please indicate the **worst pain** you had since your surgery:

0 1 2 3 4 5 6 7 8 9 10

no pain worst pain possible

P2. On this scale, please indicate the **least pain** you had since your surgery:

0 1 2 3 4 5 6 7 8 9 10

no pain worst pain possible

B

SCREENING - INCLUSION CRITERIA

S1. Time of data collection is POC1 AND patient is 6 hrs (minimum) in the ward

S2. Patient is consenting age or over

S3. Patient has given his consent (or consent) to participate

If we to 13, mark the reason:

1. Patient is not on the ward

2. Patient does not wish to participate

3. Patient is not 18

4. Patient has no reach pain

5. Patient is not 18

6. Patient has no consent

7. Patient is not 18

8. Patient is not 18

9. Patient is not 18

10. Patient is not 18

11. Patient is not 18

12. Patient is not 18

13. Patient is not 18

14. Patient is not 18

15. Patient is not 18

16. Patient is not 18

17. Patient is not 18

18. Patient is not 18

19. Patient is not 18

20. Patient is not 18

21. Patient is not 18

22. Patient is not 18

23. Patient is not 18

24. Patient is not 18

25. Patient is not 18

26. Patient is not 18

27. Patient is not 18

28. Patient is not 18

29. Patient is not 18

30. Patient is not 18

31. Patient is not 18

32. Patient is not 18

33. Patient is not 18

34. Patient is not 18

35. Patient is not 18

36. Patient is not 18

37. Patient is not 18

38. Patient is not 18

39. Patient is not 18

40. Patient is not 18

41. Patient is not 18

42. Patient is not 18

43. Patient is not 18

44. Patient is not 18

45. Patient is not 18

46. Patient is not 18

47. Patient is not 18

48. Patient is not 18

49. Patient is not 18

50. Patient is not 18

51. Patient is not 18

52. Patient is not 18

53. Patient is not 18

54. Patient is not 18

55. Patient is not 18

56. Patient is not 18

57. Patient is not 18

58. Patient is not 18

59. Patient is not 18

60. Patient is not 18

61. Patient is not 18

62. Patient is not 18

63. Patient is not 18

64. Patient is not 18

65. Patient is not 18

66. Patient is not 18

67. Patient is not 18

68. Patient is not 18

69. Patient is not 18

70. Patient is not 18

71. Patient is not 18

72. Patient is not 18

73. Patient is not 18

74. Patient is not 18

75. Patient is not 18

76. Patient is not 18

77. Patient is not 18

78. Patient is not 18

79. Patient is not 18

80. Patient is not 18

81. Patient is not 18

82. Patient is not 18

83. Patient is not 18

84. Patient is not 18

85. Patient is not 18

86. Patient is not 18

87. Patient is not 18

88. Patient is not 18

89. Patient is not 18

90. Patient is not 18

91. Patient is not 18

92. Patient is not 18

93. Patient is not 18

94. Patient is not 18

95. Patient is not 18

96. Patient is not 18

97. Patient is not 18

98. Patient is not 18

99. Patient is not 18

100. Patient is not 18



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.

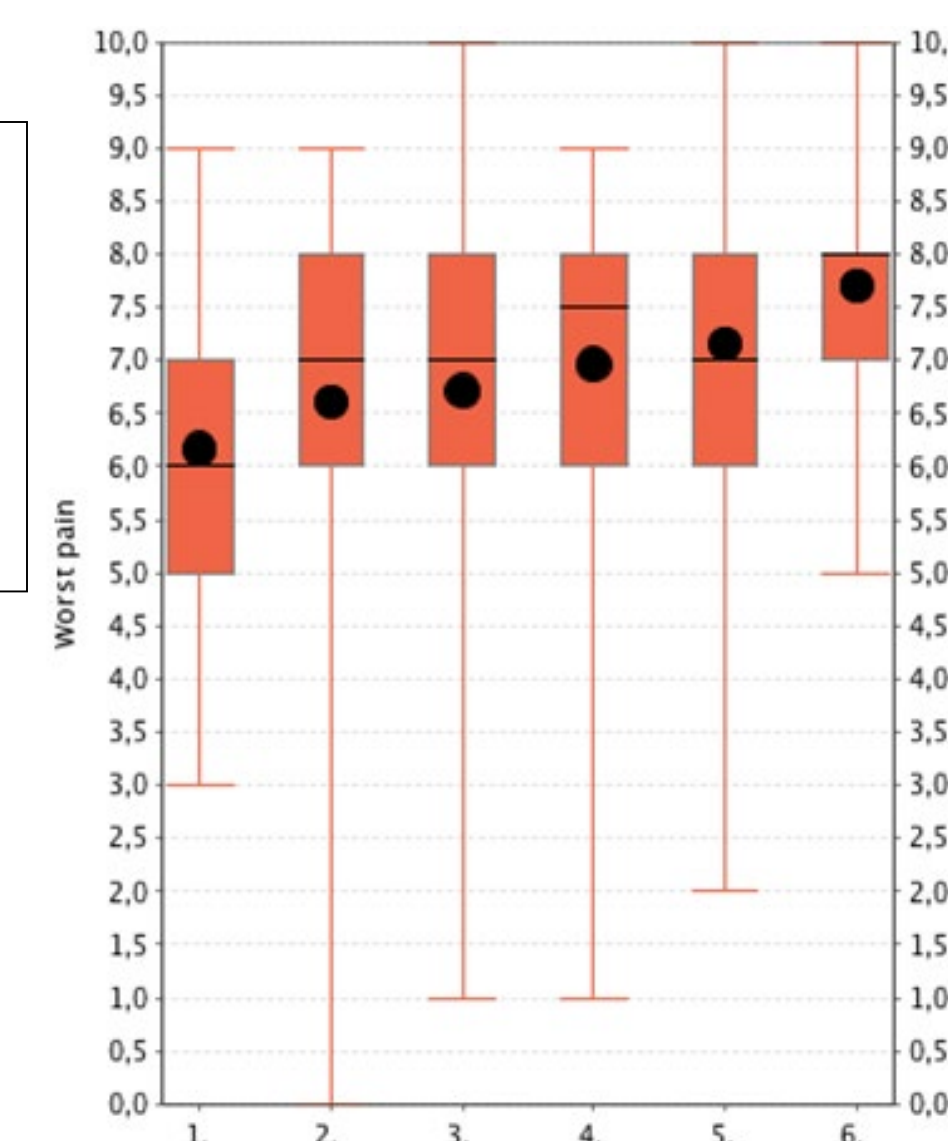
83% (n=63) of patients reported worse pain since surgery of 4\10 and over; 77% (n=56) reported worse pain of 6\10 and over.

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)", Universitätsklinikum Jena, Germany. (2) Kopf et al., Advisory Board Archimedes