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Research Article

**ASSESSMENT OF PAIN MANAGEMENT IN POST-
OPERATIVE CASES USING DIFFERENT SCALES AND
QUESTIONNAIRES**¹Mudasir Maqbool, ²Dr. Sehrish Javed, ³Aqeel Ahmed Bajwa¹Department of Pharmaceutical Sciences, University of Kashmir., ²Women Medical Officer, BHU Warn Sheikhpura., ³Scunthorpe General Hospital UK**Abstract :**

Postoperative pain is one of the most common therapeutic issues in patients admitted in hospital and it can lead to increase in morbidity. Various studies regarding prevalence of Postoperative (PO) pain in tertiary care hospitals represent above 50% in first 24 hrs after surgery and above 30% in next 24 hrs after surgery. A comparative study of prevalence of post PO pain in different resource settings has shown that PO pain management (PM) requires the involvement of the anesthesiologists, surgeons, physicians and patient. Assessment of pain and its correlation with LOS of patient is important factor regarding treatment and recovery of patient. There is no separate and absolute method to determine level of pain and Length of stay (LOS) of patient specifically and separately. Along with assessment on scales, there are some other methods based on well design questionnaire. Some of those questionnaires are "The McGill Pain Questionnaire", "Pain Impact Questionnaire", and pain questionnaire developed by "The American Pain Society Quality of Care Committee". Etc. in this review, we will briefly see about the various Scales and Questionnaires used in Assessment of Pain management in post-operative cases.

Keywords: Postoperative pain, management, The McGill Pain Questionnaire, The American Pain Society Quality of Care Committee.

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INTRODUCTION:

Postoperative pain is one of the most commonly seen therapeutic problems in patients admitted in hospital and it can increase morbidity.[1-8] Various studies regarding prevalence of Postoperative pain in tertiary care hospitals represent above 50% in first 24 hours after surgery and above 30% in next 24 hours after surgery.[9] A comparative study of prevalence of post Postoperative pain in different resource settings has shown that Postoperative pain management requires the involvement of the anesthesiologists, surgeons, physicians and patient.[9] As the effect of general anaesthesia in upper abdominal and also in thoracic surgery, reduction of breathing suppression and cough suppression can increase sensation of pain and also facilitating retained pulmonary secretion and pneumonia but regional anaesthesia has no such kind of effect which could be merge with Postoperative pain.[10] Postoperative pain can lead to delay in normal gastric and bowel function [11], thus contributing to a longer recovery period.[12] Pain is not an unavoidable consequence of surgery. In the majority of patients Postoperative pain is preventable with adequate analgesics and by use of appropriate newer techniques.[2-8,12,13] Despite this, a number of studies and surveys have shown a high prevalence of significant pain after surgery.[14-20] The recognition of the inadequacy of Postoperative Pain Management has prompted the development of corrective efforts by anaesthesiologist,

surgeons,[5,9,21-23] and Pain Management groups.[2,3,24-26] Assessment of pain and its correlation with LOS of patient is important factor regarding treatment and recovery of patient.[12] There is no separate and distinguished method to determine level of pain and LOS of patient specifically and separately. Along with assessment on scales, there are other methods based on well design questionnaire. Some of those questionnaires are “The McGill Pain Questionnaire” [32], “Pain Impact Questionnaire”[33], and pain questionnaire developed by “The American Pain Society Quality of Care Committee”.[34-36]

ASSESSMENT OF INTENSITY OF PAIN:

Assessment of intensity of pain is subjective phenomenon related with individual patient thoughts about pain. Its objective or absolute measurement is not possible with high accuracy and precision, although it is very necessary approach for selection of appropriate or most effective analgesic medication, its dose and duration of treatment. Pain assessment tools are mainly used in questionnaire based form or scale types. Scales are further subdivided into self-reporting, observational and psychological data according to mode of data collection.[37-39] Three widely use scales are Numeric Rating Scale (NRS) [37], Visual Analog Scale (VAS) [38] and Verbal Rating Scale (VRS) [Figure1] [35, 40].

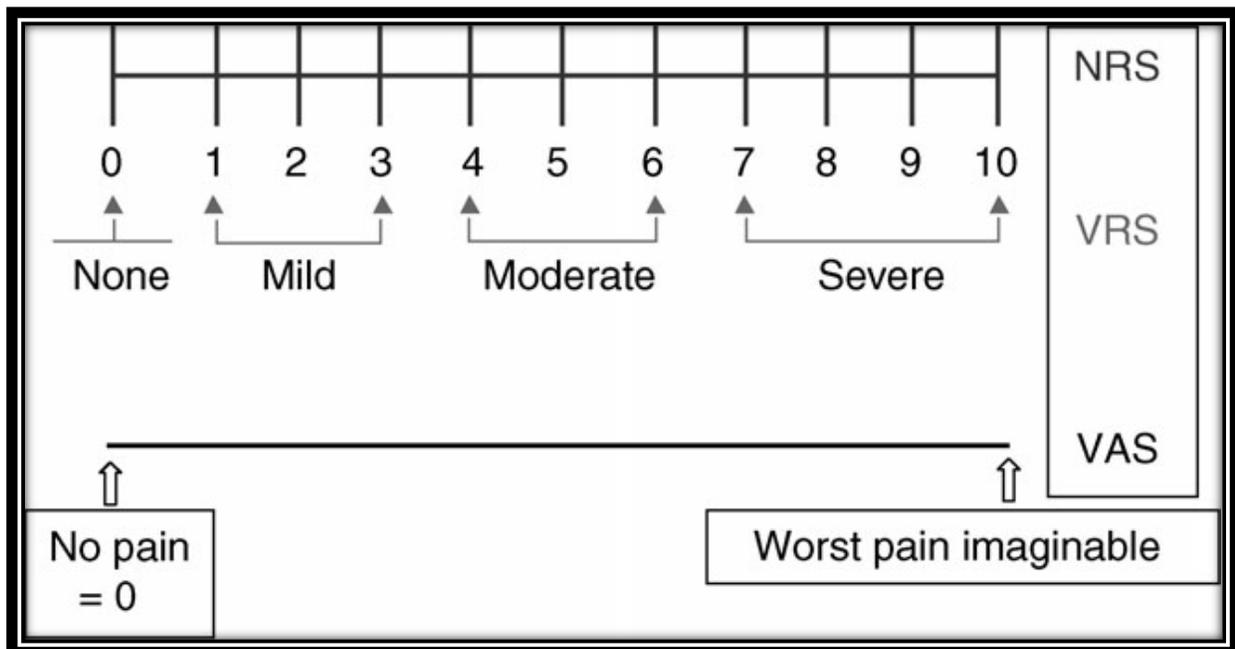


Figure 1 Commonly use one dimensional scale represents NRS, VRS and VAS together [32]. Validity of VRS is not found significant and not comprise and use as substitute of NRS and VAS and mostly use only for nonparametric analysis.[33] They function best for the patient's subjective feeling of the intensity of pain right now—present PI. They may be used for worst, least, or average pain over the last 24 h, or during the last week. There are some limitations with this, as memory of pain is not accurate and often coloured by changing context factors.[34, 35, 36].

VALIDATION OF SCALES:

The NRS and the VAS scales have shown almost identical values in the same patient at different times after surgery, although the four point VRS seemed to underestimate the most intense pain compared with the VAS.[35] For younger children, from about 3 year, pain scales with happy and unhappy faces are well validated, for example, the faces pain scale.[34] Bijur et al. (2003) obtained a significant correlation between the VAS and the NRS ($r = 0.94$, 95% CI = 0.93-0.95) with the slope of the regression line 1.01 (95% CI = 0.97-1.06) indicating a strong level of agreement between the two tools.[42] De Loach et al. (1998) also found high correlation in postoperative patients between the VAS and the NRS although, the regression line slopes were 0.86 and 0.95 suggesting that the two scales do not agree.[43] This tells us that at best the VAS and the NRS provide similar information about pain, but a direct conversion cannot be made between them.[41] New research by Brewer [44], Sitepu [45], Wang and Keck [46], Zohu [47] regarding validation of VAS and NRS are done by many researchers not only for particular human species with specific kind of hospital setting but globally accepted all around the world. Zohu [47] reported high validity and reliability of VAS and NRS for Asian and Chinese patients. [48] The ability to assess pain outcomes is critical to improving pain management. Traditionally, the assessment of pain outcomes has been conducted by measuring each patient's subjective level of pain intensity scales. The American Pain Society Quality of Care Committee first developed quality improvement guidelines and programs to improve the treatment outcomes of patients with acute pain and cancer pain.

LOS OF PATIENTS WITH RESPECTED TO PM:

This scale is not solely used for multifaceted approaches to pain management, which should not only include the concept of proper PM but also

patient satisfaction with treatment of pain.[49] Recent studies reported interesting contradictory evidences regarding the association between patient satisfaction and pain. In a study of 2012 conducted in surgical unit it was concluded that the odds of patient satisfaction were 4.86 times if pain was controlled and 9.92 times if the patient were satisfied with efforts of health care team to PM .[50] Pellino and Ward [51] reported interestingly puzzling and inverse relationship between pain and satisfaction. Donovan reported that 86% patients were satisfied with their pain management whereas 75% of them reported significant pain. Similarly Chung and Lui also reported 85% of postoperative patients reported mild, moderate or severe pain, while 65% among them were satisfied with the pain management they received. Weis et al[52-54] investigated that although 43% of patients rated their pain as moderate to severe, 75% of patients were satisfied with their PM. Most of recent studies evaluating patient pain in different types of surgery report similar trends that the most of the patients reported that they were satisfied with the pain management they received while reported high level of pain they felt [55-59].

CONCLUSION:

Although, Pain Management is below the average for patients bearing severe pain in tertiary care hospital still high prevalence of mild and moderate pain is common. Satisfaction of patients is based on sociologically on behaviour of health care team, physically on betterment of treatment or surgery for which patient went through and psychologically cost of treatment which is one of the most important contributing factor in developing country like India where medical expenditure is one of the financial burden for below than middle class family. So pain rating scale should integrate with socio-economical status of patient to investigate the LOS and multidisciplinary, multi-drugs combination therapy should apply, for much better PM.

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