

Acute pain services in India: A glimpse of the current scenario

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Abstract

Background and Aims: Acute postoperative pain is still a neglected and unresolved issue in day to day practice. Acute pain services were conceived three decades ago to form a dedicated team to monitor pain assessment and treatment as per laid down pain protocols and guidelines. The concept of acute pain service (APS) is slowly evolving in India.

Material and Methods: This nationwide questionnaire survey was conducted to identify the status of postoperative pain, the prevalent treatment practices, and the prevalence of acute pain services in India. An electronic communication was sent to 4000 Indian Society of Anesthesiologists life members.

Results: We received only 146 responses mainly from faculties/consultants from few corporate hospitals or medical colleges. About 68 APSs were functioning, however, 20 APS do not have any training programs and 34 have no written protocols. Anesthesiologists were involved in postoperative pain management only when epidural analgesia was employed.

Conclusion: This survey found that majority of anesthesiologists agree to establish an APS, however administrative issues seem to be a major barrier.

Key words: Acute pain service, pain in India, post-operative pain, questionnaire survey

Introduction

Inadequate pain relief after surgery has been highlighted by many pain surveys in the last decade.^[1-3] Impact of unrelieved pain leads to deleterious effects on almost all systems of the body resulting in delayed recovery and psychological distress and anxiety. Lately, the concept of acute pain service (APS) is emerging in India. There is some evidence to show that the presence of APS and development of guidelines reduces pain scores and enhance patient satisfaction in the hospital.^[4]

APS is defined as a dedicated health care personnel driven service which assesses, monitors and treats pain and side effects of pain medications, on a 24 hour basis. Audits are

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performed to evaluate the efficacy of pain service. Royal College of Surgeons and College of Anaesthetists working party on pain after surgery^[2] recommended that APS should be introduced in all major hospitals performing surgery in the UK. Nearly, all major hospitals in North America, Europe and Australia have vibrant APSs. We proposed to collect realistic data regarding the existence of APS, and to evaluate its quality assurance in India. This attempt also included the prevalent pain practices, hospital opioid policy and attitude of anesthesiologists regarding APS.

Material and Methods

This prospective questionnaire (20 items questions) survey was undertaken (July-November 2011) by sending a four pages electronic proforma by E-mail to 4000 anesthesiologists across India in all states. Around 100 printed proformas were also served at various conferences of anesthesiologists by hand for completion. Whosoever completed the questionnaire (Annexure 1), were considered to have consented to participate in the aforesaid survey. Question nos. 1-10 were related to APS, aimed to elicit details of APSs in their hospital and question nos. 11-20 were to gather information regarding prevalent post-operative pain management practices in their hospital. Data mainly the responses was analyzed as percentages, using IBM SPSS statistics, version 14.0.

Results

A total of 4000 electronic questionnaires and 100 hard copies were sent and 146 responses were received including 105 electronic submission and 41 hard copies from nearly all states of India. 78% responses were received from the hospitals where more than 1000 surgeries are performed every year, including 48% from medical colleges 26% from corporate hospitals, rest from smaller set ups [Figure 1]. Among the respondents, 65 were anesthesia faculties, 53 consultants, and 24 residents with 56% responders having more than 5 years experience in anesthesiology. Only 47% (68) doctors reported to have an APS. Quality of APS is depicted in Figure 2. Only three hospitals had a dedicated pain team at night also. Forty four (65%) APSs were managed by anesthesiologists, the rest others were managed by surgeons and nurses. Level of pain assessment was also variable. Pain was assessed 2-3 times a day in 26 hospitals and 24 had pain established as a fifth vital sign on the temperature, pulse rate and respiratory rate chart and 10 hospitals measured pain once a day only despite an APS. Pain was assessed by using different pain scales. Visual analog scale was used in 25 hospitals, numerical rating scale in 9 and 15 hospitals assessed pain verbally. An opioid policy was in place in 86% hospitals (opioid cupboard, opioid register) but only 50% APSs used opioids in the wards and followed written protocols [Table 1]. There was no pain education provision in 29% hospitals. Major hurdles in starting an APS were reported as lack of manpower (15/78), or lack of initiative (21/78) or both. Pain was equally managed by anesthesiologists or surgeons with nurses in some hospitals with 58% having no pain measurement. Majority anesthesiologists (78%) managed pain by epidurals, mostly (46%) by intermittent opioid boluses by them or in other 26% hospitals, nurses took care of epidurals. Majority of anesthesiologists (85%) opined that they would take an active role in APS, if the service would start and 97% were ready to take the responsibility [Table 2]. Regarding the cost of APS, 62% suggested in favor of a separate billing for pain services provided.

Discussion

This post-operative pain survey encompassing prevailing pain practices, personnel, drug and protocol related issues shows that the concept of "APS" is slowly emerging in India.

This survey shows that in only 45% hospitals, anesthesiologists were involved in post-operative pain and non-anesthesiologists (55%) like surgeons or nurses were mainly responsible for pain management in the wards. Most of APSs are run in corporate or big teaching hospitals. Except in APS scenarios, pain is not routinely measured or documented in the hospitals. Epidural analgesia is the commonest mode of analgesia used for post-operative pain often with opioid boluses by the concerned

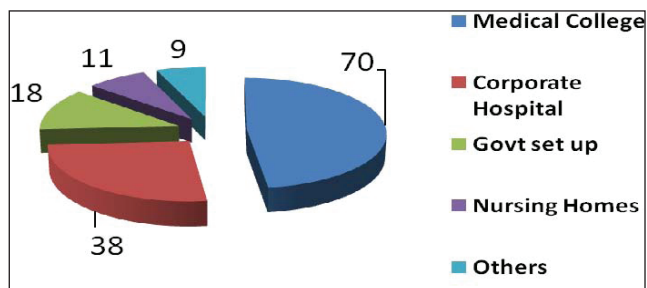


Figure 1: Type of the hospital (n = 146)

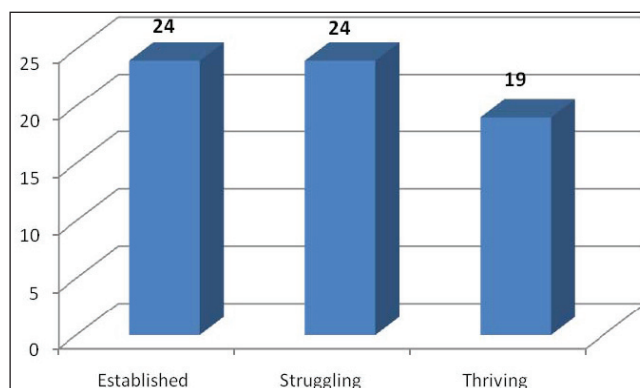


Figure 2: Status of acute pain service (n = 68, missing data-1)

OT anesthesiologists. At an optimistic note, majority of the anesthesiologists feel the need of an APS in their hospital as well as wish to take the responsibility to run the service. However, a busy hospital environment, paucity of staff, inappropriate attitude and inadequate knowledge of pain management remain the main barriers for pain management. In many hospitals anesthesiologists are overwhelmed with their responsibilities in the operation theatre with little time to spare for post-operative pain visits.^[5]

APS is still not well organized in India, even though the anesthesiologist takes care of post-operative pain relief in major surgical procedures as well as takes care of the surgical ICU.^[6]

APSs started in mid 1980s^[7-9] with an understanding that a dedicated team is required for regular and frequent pain assessment with well-defined goals for pain treatment including written protocols and continual education of the health care staff. There is evidence to show that establishing APS can improve standard of care, reduce morbidity, hasten hospital discharge and lower health costs apart from improving patients' satisfaction.

Vijayan^[3] conducted a six countries questionnaire survey and reported that, in India, less than 30% patients receive adequate acute pain relief. This study also testifies that only 31 respondents have written protocols, 59 have an opioids policy (opioid cupboard, register) and only 34 use intravenous opioids in wards despite having an APS.

Annexure 1: A survey on views on the existence of acute pain service (APS) in India

(Please note that your participation in this survey is optional and the data collected will be used for medical presentation. We assure that no individual will be quoted or identity revealed).

Name (optional) Age Sex
 InSTITUTE State Date

Type of institute: Medical College/Corporate hospital/Government set up/Nursing home/any other work load (no of surgeries per year): Less than 1000/more than 1000 major surgeries.

Position in the institute: Resident/faculty/consultant

Years of service in the institute >5 years <5 years
 Years of experience in pain management >5 years <5 years

(The following questions are with respect to management of acute pain in the immediate post-operative period in the hospital).

Do you have acute pain service (APS) in your hospital Yes/No

If Yes, please answer (1-10)/if No, please turn over and answer (11-20)

1. How would you describe the APS in your institute: Struggling/thriving/established
2. Who looks after APS in the day in your hospital
 Anesthetists Surgeons
 Nurses Others (specify)
3. Who looks after “the night calls/emergency pain calls” of the APS?
 Dedicated pain team Anesthetist on call Surgeons
 Floor sister Others (specify)
4. Is there any in house training for
 Doctors: Yes/No Nurses: Yes/No
5. What method of post-operative pain management you use in your hospital (approx % please)
 Intermittent IV boluses _____% IV PCA_____ %
 Intermittent boluses through epidural catheter_____ %
 Epidural infusions _____ %
 Nerve Blocks with/without catheters _____ % Others (specify) _____ %
6. How do you measure pain?
 Visual analogue scale Numeric rating scale
 Subjective Others specify
7. How often is pain being measured in the ward: Occasionally/once a day/2-3 times/with every TPR charting
8. Do you have written protocols for all to follow: Yes/No
9. Do you use opioids in the wards: Yes/No, if Yes please specify route, and type _____
10. Do you have an opioid policy (opioid cupboard/register) in your hospital?
11. Do you feel the need of an APS in your set up: Yes/No
12. What is the major hurdle in starting APS:
 Lack of Manpower to run service Unavailability of opioids
 Lack of initiative Lack of funds
 Others (specify)
13. How is pain currently managed in the hospital:
 By surgeons By nurses
 By anesthetist Others (specity)
14. Is pain being measured on floor? Yes/No

If Yes how often: Occasionally/once a day/2-3 times/with every TPR charting

15. Do you provide epidurals analgesia in the post-operative period? Yes/No
16. What drug is used epidurally?
 Intermittent boluses Continuous infusion
17. Who monitors the epidural in the post-operative period
 Concerned anesthiologist Ward Nurse
18. Would you in future take an active lead in creation of APS in your hospital?
 Yes No No comments
19. Do you think anesthiologist should take responsibility of acute pain service in every hospital?
 Yes No No comments
20. Do you think patient should be billed for APS service separately?
 Yes No No comments

Any Remarks/Suggestions:

Table 1: Feedback from centers with APS (n = 68)

Questions	No. of responses
Who looks after acute pain service in the day	
Anesthetist	44
Surgeons	1
Nurses	1
Others	22
Who looks after the night calls/emergency pain calls	
Dedicated pain team	3
Anesthetist on call	45
Surgeons	1
Floor sister	4
Others (specify)	15
What method of post-operative pain management you use in your hospital	
Intermittent intravenous boluses	6
More than one technique	50
All techniques	11
Others (specify)	1
How do you measure pain?(missing data 1)	
Visual analogue scale	25
Numeric rating scale	9
Subjective	15
Others (combination of above)	18
How often is pain measured in the ward? (missing data 1)	
Occasionally	6
Once a day	10
2-3 times	26
With every TPR charting	25
Do you have written protocols (missing data-3)	Yes-31, No-34
Do you use opioids in the wards?	
No	11
Yes, only IV route	34
Yes, only epidural	3
Yes, other routes and more than one routes	20
Do you have an opioid policy (opioid cupboard/register) in your hospital?	Yes-59, No-9

APS = Acute pain service, TPR = Temperature, pulse rate and respiratory rate

Table 2: Feedback from centers without APS (n=78)

Questions	No. of responses	
What is the major hurdle in starting APS?	Lack of manpower to run service	15
	Lack of initiative	21
	All (including lack of funds, unavailability of opioids)	5
	More than 1 reason (lack of funds)	35
Who is currently managing pain in the hospital?	Others	2
	Surgeons	19
	Nurses	5
	Anesthetist	20
Is pain measured on floor, and how often?	Others (more than 1 of the above)	34
	Not measured	45
	Yes, occasionally	15
	Yes, once a day	4
Do you provide epidural analgesia in the post-operative period?	Yes, 2-3 times	10
	Yes, with every TPR charting	4
	Yes	61
	No	17
Who monitors the epidural in the post-operative period? (missing data-6)	Concerned anesthesiologist	39
	Ward nurse	25
	Both	8

APS = Acute pain service, TPR = Temperature, pulse rate and respiratory rate

In India, there is no single stakeholder of post-operative pain. Anesthesiologists are managing pain only when epidural or regional analgesia techniques are extended in the post-operative period. Until nurses are trained in post-operative pain management, possibly the critical issue of post-operative pain shall remain unresolved. The first step for successful pain management is assessing and documenting pain as fifth vital sign, which is to be charted on the vital signs chart by the nurses. The scenario is further compounded as patients also do not complain about pain and do not expect a great pain relief after surgery, and usually are fearful of opioid side effects.^[10]

Much more disheartening observation is that, pain training is not imparted in 29% of APSs and 50% do not have any written protocols to follow. In 60% of APSs, pain is not measured regularly. Therefore the quality of services provided by APS is also questionable. Despite a firm existence of APSs in UK and internationally, many patients continue to suffer unnecessary pain. In UK, a survey of 14 hospitals^[11] report that 60% patients had pain score of 5 or more at 24 hours, with 39% reporting similar pain intensity and 8% severe pain at 7 days after surgery. In another UK survey on pain services,^[10] 95% respondents reveal that better organization is needed rather than new drugs and treatment. Indian studies^[12,13] on APSs also emphasized that despite an APS in a cancer hospital setting, 60% patients complained of moderate to severe pain. Developed countries have an established APS

in place and usually conduct quality assurance studies which are missing in India so comparison was not possible; therefore, a direct comparison of quality assurance was not attempted.

This study has many limitations. The sample size is small to draw a tangible picture about the status of APSs in India. Many recipient of the electronic study questionnaire may have not responded as APS probably does not exist in their places of practice. We expected at least ten percent reply of questionnaires which may have had a better reflection about the status of post-operative pain services in India. A new multi-centric survey may be planned with an electronic submission to receive a larger sample. A new validated questionnaire with a more comprehensive approach be applied ensuring all questions to be completed by all respondents.

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