



# Creation of Electronic interface for the Acute Pain Service: In-house efforts from an Indian Centre



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## INTRODUCTION

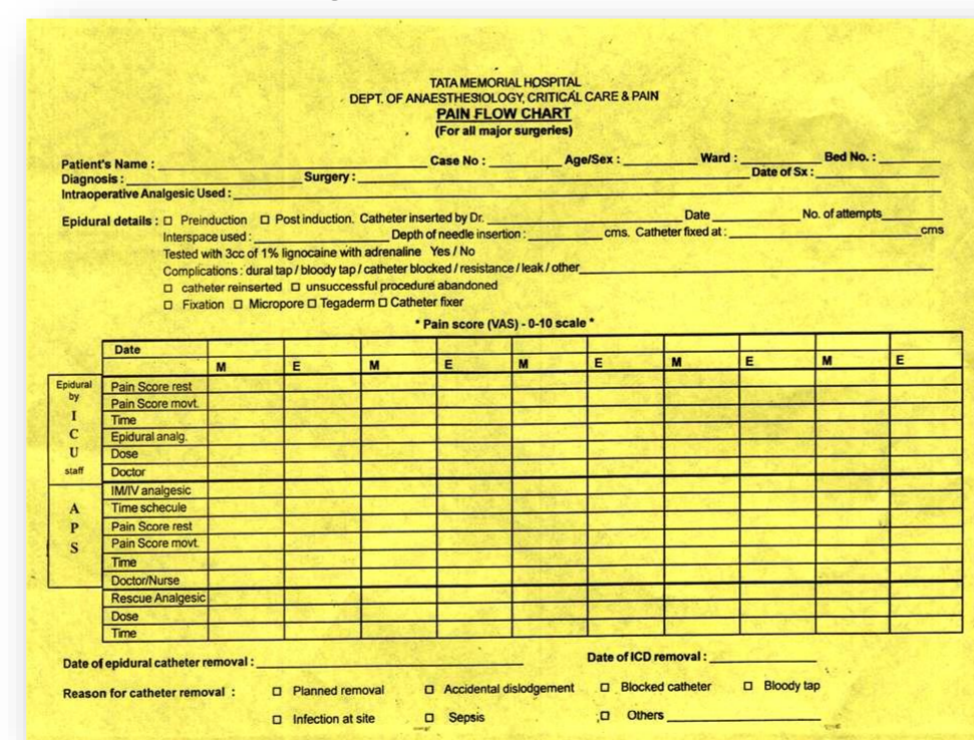
- Acute Pain services (APS) play a significant role in reducing pain in the post-operative period.
- Clinical record maintaining and analysis is an essential part for the growth and development of the services.
- We describe our journey from traditional hard copy clinical sheets to personalized in house electronic APS data archiving process.

## METHODS

- Earlier the clinical notes were entered in physical sheets
- The service related data was manually transferred, to a statistical based software for analysis and regular audits.
- Physical sheets are
  - vulnerable to loses, misplacement
  - mounts to duplication of data entry in varied formats.
  - Retrieving of the clinical sheets poses hurdles
- The Acute Pain Management Application was conceived in 2018.
- The web base acute pain management application was developed by hospital IT team using Visual studio .Net and AS400 database.

## METHODS

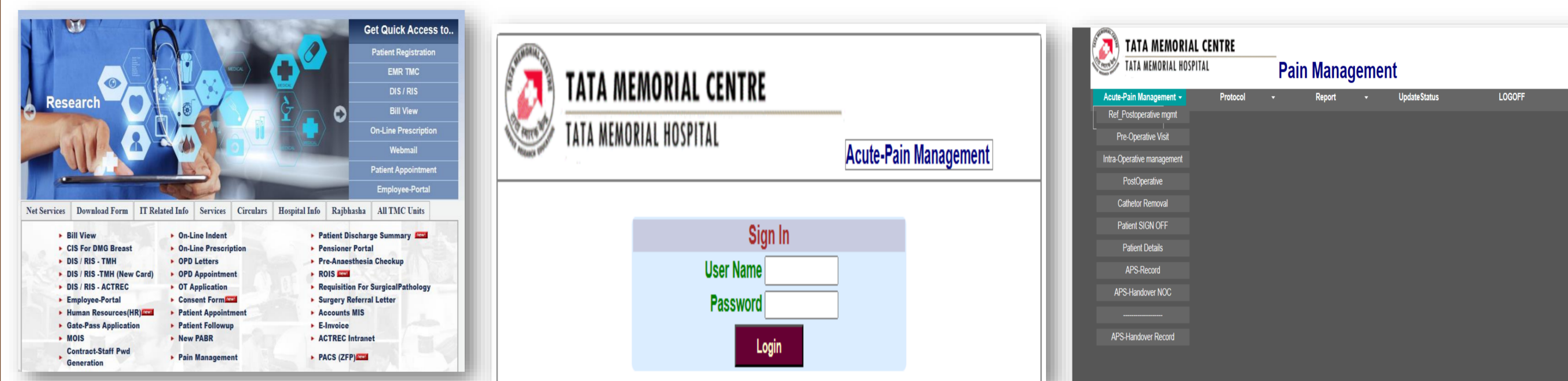
- It seamlessly integrated existing clinical workflows and digitalized manual processes prevalent in the field.
- The same was then thoroughly tested by the clinical team and finalized after a few iterations.
- A robust web-based platform was developed, catering to the unique needs of acute pain management.
- The application adopts a three-tiered, client-server architecture, ensuring scalability, reliability, and security.
- This architecture also enhances the quality and accessibility of medical records



## REFERENCE

- Love BL, Jensen LA, Schopflocher D, Tsui BCH. Development of an electronic database for Acute Pain Service outcomes. Pain Res Manage 2012; 17: 25-30
- Goldstein DH, Phelan R, Wilson R, Ross-White A, VanDenKerkhof EG, Penning JP, Jaeger M. Brief review: Adoption of electronic medical records to enhance acute pain management. Can J Anaesth. 2014 Feb;61(2):164-79.

## METHODS



## RESULT & DISCUSSION

- 20,000 patient records have been entered into the APS web application.
- Creation of a unique link for the APS protected by individual password ensures accountability of all data entries.
- Mandatory fields ensures no loss of essential information.
- Safety features alerts the user for common errors.
- The link allows a platform to access important hospital based protocol and information.
- The potential fatal drawback of this system would remain a server related malfunction and loss of huge data and hence sound retrieval process is mandatory.
- Impact and ease of complex analysis from this digital database, when compared with the previous manual entry system has not been systematically analyzed and is due.

## CONCLUSION

The Acute Pain Management Application stands as a testament to the synergy between medical expertise and technological innovation. By harnessing the power of digital solutions, healthcare providers can deliver more efficient and personalized care, ultimately improving patient outcomes and advancing the standard of acute pain management.