



**Service Priorities and Programmes**  
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**Nurse-based, anaesthetist supervised acute pain service in an acute hospital-a service evaluation**

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**Introduction**

Acute pain service (APS) was initiated to provide dedicate care to post-operative patients in 1985. Anesthetists-based and nurse-based APS are two commonly used models. Although anesthetists-based model is widely adopted, nurse-based model could also provide effective, safe and cost effective post-operative pain management. In Hong Kong, almost all Hospital Authority hospitals have anesthetist-led, nurse supported APS. Anesthetist-based APS started in late 90s in UCH. In 2000, a pain nurse was recruited to provide direct and indirect patient care e.g., post-operative patient assessment and education, staff education and writing guidelines and protocols. In Dec 2016, a new model: 'Nurse-based, Anesthetist Supervised Acute Pain Service (nurse-based APS) was proposed and endorsed by Pain Medicine Committee. The service was commenced in Feb 2017 and its effectiveness was evaluated.

**Objectives**

- 1) To explore the incidence of APS re-consultation after discontinuation of nurse-based APS
- 2) To explore the compliance rate of the protocol 'Discontinuation of Intravenous Patient Controlled Analgesia (IVPCA) by accredited pain nurses' (Protocol)

**Methodology**

This was a retrospective service evaluation. Patients with IVPCA after operation and obstetric pain management service (OBS) between February and November 2017 were included. Exclusion criteria: 1) Patients with epidural and nerve block analgesia; 2) Essential data were missing from acute pain service database  
Structure of nurse-based APS

It runs by one pain nurse and anesthetist, Monday-Friday, 08:12-17:00; pain nurse review patients with IVPCA and OBS daily. Standard patient assessment templates with pain score and side effects etc are used for patient assessment and documentation. Patients are discharged from APS when IVPCA are discontinued by accredited pain nurse according to standard criteria. OBS is terminated by pain nurse after first post-operative day. The anesthetist is informed if there are inadequate pain

control, hypotension or oxygen desaturation etc.

### **Result**

Pain nurse provided 451 and 662 patient visits for patients who were using IVPCA and OBS respectively. Pain nurse discharged 99 IVPCA and 536 OBS patients. The median resting and functional pain score were 1/10 and 4/10 respectively at the end of nurse-based APS for patients with IVPCA. There were 100% compliance of the Protocol and no incidence of APS re-consultation.

### **Conclusion**

Nurse-based APS covered more than 45% of patients with APS, it provided safe and effective post-operative pain management.