A survey of directors of Canadian academic acute pain management services: the nursing team members role - a brief report

[Une enquête auprès des directeurs de services universitaires canadiens de traitement de la douleur aiguë : le rôle de l'équipe de soins infirmiers - un résumé]

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Purpose: The purpose of this study was to identify Canadian academic centres with Acute Pain Management Service (APMS), and to describe the nature of nursing involvement on the APMS.

Methods: Departments of Anesthesiology in the 16 Canadian medical schools were contacted to obtain a list of affiliated hospitals and the person most responsible for acute pain. A questionnaire designed to gain insight into nursing involvement on APMS was sent out to the 62 hospitals between June 2000 and January 2001.

Results: Seventy-six percent of centres responded and of these 89% ($n = 42$) had an APMS. In 76% of APMS nursing was involved on the service. Sixty-two percent ($n = 26$) had a designated nursing team member on the APMS who contributed in the realms of patient care, staff and patient education, and administrative development. The APMS nurse performed patient rounds independently (62%) and with a physician (64%). Decision-making was primarily the responsibility of anesthesiology, however, the APMS nurse (38%) and the bedside nurse (23%) were involved in some centres. The highest educational attainment in the 26 hospitals with an APMS nurse was, diploma RN (27%), BScN (31%) and MSc (12%). The distribution of advance practice nursing was nurse practitioner (12%), clinical nurse specialist (27%), or both (8%).

Conclusion: Nursing played an important role on the APMS, however, quality acute pain management can only be achieved with continuing efforts by anesthesiology, nursing and hospital administration to support the role of nurses as essential members of the acute pain team.

Objectif : *Recenser les centres universitaires canadiens qui ont un Service de traitement de la douleur aiguë (STDA) et décrire la nature de l'implication du personnel infirmier.*

Méthode : *Nous sommes entrés en communication avec les services d'anesthésiologie de 16 écoles médicales canadiennes afin d'obtenir une liste des hôpitaux affiliés et de la personne qui traite spécialement la douleur aiguë. Un questionnaire visant à obtenir un aperçu de l'implication du personnel infirmier au STDA a été envoyé à 62 hôpitaux entre juin 2000 et janvier 2001.*

Résultats : *Les réponses sont venues de 76 % des centres dont 89 % ($n = 42$) possédaient un STDA. Dans 76 % des STDA, le personnel infirmier participait aux activités du service. Soixante-deux pour cent ($n = 26$) des STDA avaient une équipe de soins infirmiers désignée qui collaborait aux soins des patients, à la formation du personnel et des patients et au développement administratif. L'infirmière du STDA faisait une tournée des patients, seule (62 %) et avec un médecin (64 %). La prise de décision relevait principalement de l'anesthésiologie, mais l'infirmière du STDA (38 %) et l'infirmière soignante (23 %) étaient concernées dans certains centres. Le plus haut niveau d'instruction recensé dans les 26 hôpitaux possédant une infirmière au STDA a été un diplôme d'infirmière autorisée (27 %), un B.Sc.Inf. (31 %) et une MSc (12 %). La pratique avancée des soins infirmiers était distribuée comme suit : infirmière praticienne (12 %), infirmière spécialiste de clinique (27 %) ou les deux (8 %).*

Conclusion : *Les soins infirmiers représentent une composante importante du STDA. Cependant, la qualité du traitement de la douleur aiguë repose sur les efforts conjugués et soutenus de l'anesthésiologie, des soins infirmiers et de l'administration hospitalière permettant au personnel infirmier de jouer un rôle essentiel au sein de l'équipe de traitement de la douleur aiguë.*

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THE importance of adequate acute pain management resulted in the development of interdisciplinary Acute Pain Management Services (APMS), which are usually run by anesthesiology.[1,2] This coordinated approach to the management of acute pain is supported by national guidelines and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards.[1,3] Nursing is meant to play an active role.[2,4,5] The purpose of this study was to describe the nature and extent of nursing involvement on APMS in Canadian academic centres.

Methods

A survey was designed for the purposes of gaining insight into the nature and operations of APMS in Canadian academic centres. This report is based on the portion of the questionnaire dedicated to nursing involvement. Departments of Anesthesiology in the 16 Canadian medical schools were contacted to obtain a list of affiliated hospitals and the name of the person most responsible for acute pain. Sixty-two affiliated hospitals were identified. Between June 2000 and January 2001, questionnaires were sent by regular mail to the person identified as being most responsible for acute pain management issues. Follow-up of non-responders included a combination of e-mail reminders, letters and telephone calls.

Results

Forty-seven of the 62 (76%) hospitals surveyed responded to the questionnaire. All 16 universities returned at least one questionnaire and each of the nine provinces from which the 62 academic hospitals originated, was represented. Eighty-six percent of the hospitals had at least 200 beds and 64% averaged more than ten patients on the service per day. Eighty-nine percent (n = 42) had an APMS, but 38% of the APMS did not have designated nursing involvement. The results of this study are based on the 42 hospitals with APMS (Tables I,II and Figure).

TABLE I Organization and operation of acute pain management services (APMS) in Canadian academic centres (n = 42 unless otherwise indicated)

Variable	*No*	*%*
APMS in place for 10+ years	20	48
APMS committee	16	38
Decision-making responsibility		
Anesthesiology	42	100
APMS nurse (n = 26)	16	62
Bedside nurse	10	23
Frequency of rounds		
Daily	17	40
More than once/day	25	60
Protocols		
Analgesia	31	74
Side effects	37	88
Patient education (n = 41)		
Preop teaching	36	88
Pamphlets	35	86
Video	10	24
Nursing education		
Modules provided	31	74
Certification provided	19	45

Discussion

The purpose of this study was to document the involvement of nursing in the management of acute pain, from the perspective of APMS medical directors. Ready[1] advocated for the role of a nurse with specialization in the area of acute pain management on the APMS team. Their role was to facilitate the delivery of APMS through education and support for nurses directly involved in patient care. Their knowledge level and clinical expertise would play an integral part of patient care decisions.[1] This role definition is consistent with that of an advanced practice nurse (APN),[6] and it appears that in the majority of centres the APMS nursing team member pursued this role. However, only 62% (n = 26) of centres had a designated APMS nurse. Of further concern was nursing under representation on hospital APMS committees (31%) and their lack of involvement in decisions regarding patient care (62%). These factors could have profound implications on the provision of high quality, consistent pain management.

While the practice patterns of APN described in the literature[6] are consistent with the realms of APMS nursing practice identified by our survey findings, only 12% of medical directors indicated that the nursing team member had graduate level educational preparation recommended for nursing practice at this level. In Canada, graduate level education is the preferred requirement for APN practice.[7] There are two possible explanations for this demonstrated discrepancy between APN designation and educational preparation. Although graduate level education is considered the most appropriate and preferred means for acquiring APN competencies, some nurses may have combined clinical experience and relevant educational programs to achieve APN competency.[7] Additionally, nursing qualifications as reported by physicians may produce a degree of inaccuracy, however, the findings are consistent with the literature.[4]

Only 23% of the medical directors indicated that bedside nurses were actively involved in decision-mak-

TABLE II Characteristics and responsibilities of the acute pain management services (APMS) nursing team member Canadian academic centres (n = 26)

Variable	*No*	*%*
Years of nursing experience		
< 2 years	9	35
> 5 years	14	52
Highest educational attainment		
Diploma RN	7	27
BscN	8	31
MSc	3	12
None listed	6	23
Don't know	2	8
Distribution of advanced practice		
Nurse practitioner (NP)	3	12
Clinical nurse specialist (CNS)	7	27
Both NP & CNS	2	8
Neither	13	50
Don't know	2	8
Responsibilities		
Staff education	24	93
Policies & procedures	23	89
Patient education	22	86
Monitor pumps	21	79
Collected data	20	78
Rounds with MD	17	64
Independent rounds	16	62
Patient exit interviews	12	46
Member of APMS committee (n = 16)	5	31
Chaired APMS committee (n = 16)	2	12

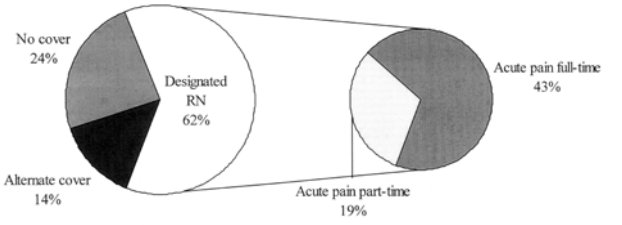

FIGURE Acute pain service nursing coverage (n = 42).

ing. Their apparent lack of involvement may be a reflection of their knowledge level of acute pain management principles.[1,8,9] The literature on nurses' attitude and knowledge of pain management principles indicates that nurses have poor knowledge of pain management principles and are reluctant to provide patients with adequate analgesia.[10] Their knowledge level is key to providing important information for decisions regarding patient care. While the literature suggests that nurses' knowledge and beliefs about pain may be improving,[8,10] efforts must be taken to ensure that accurate and current principles are being taught and supported in the hospital setting by an adequately prepared APN.

A limitation of this study relates to response bias. Seventy-six percent of the hospitals affiliated with academic centres responded to the survey. At the time that the questionnaires were sent out, many hospitals were undergoing restructuring. As a result, it was difficult to determine who was most responsible for issues relating to acute pain management within both the disciplines of nursing and medicine. This may have resulted in hospitals without an APMS being less likely to respond to the survey, resulting perhaps in the finding of an even lower proportion of hospitals with an APMS.

A second limitation of this study is that physicians were asked to comment on nursing involvement in the management of acute pain. While the literature is fairly consistent with respect to anesthesiology's role within an APMS, the involvement of nursing as a discipline is not nearly as apparent. For this reason it was determined that anesthesiologists, whom the investigators were already surveying regarding the nature and operations of APMS, be questioned about nursing involvement. Inaccuracies are unavoidable when interviewing one profession about another's preparation and practice. As such, the study conclusions must reflect this limitation.

In spite of the limitations of this study, the results provide important and useful information about Canadian academic APMS. Given that the formation of an interdisciplinary acute pain team is one of the basic standards set out by the JCAHO standards,[3] it is not only necessary for medicine and nursing to address their commitment to these standards, but hospital administration must reflect upon their role in providing the structural components necessary to meet these standards. A survey of nurses and a review of how hospital administration is facilitating the adoption of the JCAHO pain standards should follow.

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