Severity and impact of pain after day-surgery

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Purpose: To assess the intensity, duration and impact of pain after day-surgery interventions. Predictors of pain severity were also evaluated along with the quality of analgesic practices and patient satisfaction.

Methods: Eighty-nine consecutive day-surgery patients completed self-administered questionnaires before leaving the hospital and at 24, 48 hr and seven days after discharge. The survey instrument was composed of 0–10 pain intensity scales, selected items of the Brief Pain Inventory, of the Patient Outcome Questionnaire and of the Barriers Questionnaire. Analgesic intake in hospital and at home was recorded along with the use of other pain control methods.

Results: Forty percent of the patients reported moderate to severe pain during the first 24 hr after hospital discharge. The pain decreased with time but it was severe enough to interfere with daily activities in a substantial number of patients. The best predictor of severe pain at home was inadequate pain control during the first few hours following the surgery. More than 80% of the participants were satisfied with their pain treatment. However, one patient in four (25%) needed contact with a health care provider because of pain at home. Many patients (33% to 51%) reported that instructions about pain control were either unclear or non-existent on several aspects. Medication use was low overall. Thirty-two percent of the patients did not take any pain medication during the first 24 hr after discharge although almost half of them (46%) rated their pain ≥ 4 . The most common concerns patients had about using pain medication were fear of drug addiction and side effects.

Conclusion: The severity and duration of pain after day-surgery should not be underestimated. Aggressive analgesic treatment during the hospital stay should be provided along with take-home analgesia protocols and comprehensive patient education programs.

But: Évaluer l'intensité, la durée et l'impact de la douleur à la suite de chirurgies d'un jour. Les facteurs pouvant prédire la sévérité de la douleur ont également été évalués de même que la qualité des pratiques analgésiques et la satisfaction des patients.

Méthodes: Quatre-vingt-neuf patients admis pour des chirurgies d'un jour ont complété des questionnaires avant de quitter l'hôpital, à 24 et 48 hr de même qu'à sept jours après leur congé. Les instruments de mesure comprenaient des échelles de douleur de 0 à 10 et des items du Brief Pain Inventory, du Patient Outcome Questionnaire et du Barriers Questionnaire. La consommation analgésique à l'hôpital et à la maison a aussi été comptabilisée.

Résultats: Quarante pour-cent des patients ont rapporté des douleurs modérées à sévères durant les 24 hr suivant leur congé. La douleur diminuait avec le temps mais elle était assez sévère pour gêner les activités quotidiennes chez un nombre substantiel de patients. Le facteur prédisant le mieux une douleur sévère à la maison était une analgésie insuffisante à l'hôpital. Plus de 80% des patients se sont dits satisfaits du traitement de la douleur. Toutefois, un patient sur quatre a communiqué avec un professionnel de la santé à cause de douleur à la maison. Un bon nombre de patients (33% à 51%) a rapporté que les instructions concernant le contrôle de la douleur n'étaient pas claires ou inexistantes. Les patients faisaient peu usage de médicaments contre la douleur; 32% d'entre eux n'ont pris aucun médicament la première journée alors que presque la moitié (46%) cotaient leur douleur à ≥ 4 . La crainte de développer une dépendance au médicament ou de ressentir des effets secondaires étaient les principales préoccupations des patients.

Conclusion: La sévérité et la persistance de la douleur après une chirurgie d'un jour ne devraient pas être sous-estimées. Le traitement analgésique devrait se faire agressif durant le séjour hospitalier alors que des protocoles d'analgésie pour la maison devraient être fournis de concert avec des programmes d'enseignement pour les patients.

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BASED on several recent reports,^{1,2} inadequate pain control following surgery continues to be a problem in a substantial number of hospitalised patients. Whether this is also true for patients who undergo surgery on an ambulatory basis has rarely been investigated.

Ghosh and Sallam³ conducted a study on patient satisfaction after day-surgery and found that more than 80% of the 557 surveyed patients were satisfied with pain management. However, pain levels were not measured and several other reports have documented that patients can experience severe pain and report at the same time being highly satisfied with their analgesic treatment.⁴⁻⁷

Other information about pain following day-surgery comes from studies which have examined the prevalence or severity of various postoperative symptoms.⁸⁻¹⁵ For example, Chung *et al.*¹⁶ reported that the prevalence of pain 24 hr after hospital discharge varied as a function of the type of surgical procedure.

Very few studies with day-surgery patients have examined the intensity, time course, and impact of pain on patients' recovery. In addition to one study in the paediatric population,¹⁷ there are three reports about the pain experience after day-surgery. Two were specific to gynaecological surgery^{18,19} while the other limited pain measurement to the first 24 hr after surgery.²⁰

Additional information is needed to document the pain experienced by patients following day-surgery procedures. The objectives of the present study were 1) to assess the intensity and management of pain before and after hospital discharge, and 2) to examine the time course of the pain and its impact on various aspects of daily functioning during the seven days following surgery. Finally, variables that may be predictive of an increased prevalence and severity of pain at home were investigated along with the quality of analgesic practices and patient satisfaction levels.

Methods

This study was approved by the institutional Scientific and Ethics Committee and all participants signed informed consent forms. The study was conducted at the Pavillon Hôtel-Dieu of the Centre Hospitalier de l'Université de Montréal, a large teaching hospital which provides adult inpatient and outpatient services. Study participants were recruited among consecutive admissions on the Day-Surgery Unit (DSU) from May to October 1996. Patients were selected for participation if they were older than 16 yr, able to read and write French, and admitted for one of three selected operations: gynaecological laparoscopy, knee or shoulder

arthroscopy, and carpal tunnel decompression. These procedures were selected on the basis of their frequency in the institution and because they were sufficiently painful to require analgesic medication in the outpatient setting. Patients with a chronic pain condition that required medication on a regular basis during the week before surgery were excluded from the study.

The choice of anaesthesia and postoperative pain treatment was left to the individual physician. The participants stayed in the Post Anesthesia Care Unit (PACU) following surgery and were then transferred to the DSU for complete recovery before being discharged home. Demographic and medical data for each patient were collected by the first investigator (LB). Information regarding pain was collected using self-administered questionnaires which were composed of original and adapted versions of published questionnaires.²¹⁻²⁴ Each participant also received a diary to record the use of analgesic medication and other pain control methods. The final version of the assessment material was pilot tested and revised based on both patient and professional feedback. Copies of the questionnaires may be obtained from the authors.

Patient expectations regarding pain levels after surgery were assessed preoperatively. Patients rated how much pain they expected at various times after surgery using a standardised 0-10 numerical rating scale (NRS) (0 = no pain, 10 = the worst pain possible).²⁵ The same scale was used to measure pain intensity prior to hospital discharge and at home. The patients were asked to rate their present pain level and the intensity of the maximal and average pain they felt during their hospital stay and during the last 24 hr for the first two days and on the seventh postoperative day. The impact of pain on various areas of daily functioning was assessed with validated items drawn from the Brief Pain Inventory (BPI).^{21,22}

Patient satisfaction with pain management was evaluated with a six-point Likert scale from "very dissatisfied" to "very satisfied."²⁶ In addition, patients estimated the waiting time for receiving pain medication at the hospital and obtaining changes in the prescriptions if needed. Two days after surgery, patients rated the clarity of the instructions given for pain control at home. On the seventh day, they were asked if they had needed to contact a health professional and the nature of the communication. These questions were obtained from the Patient Outcome Questionnaire (POQ) issued by the American Pain Society Quality of Care Committee.²³

As the overall quality of pain control can be also influenced by patients' attitudes and misconceptions about pain management, patients rated on a 1-5 scale (1 = do

not agree, 5 = agree completely) the extent to which they agreed with seven statements which expressed concerns about reporting pain and using analgesics. These items were drawn from the Barriers Questionnaire²⁴ and are reproduced in the POQ.²³ Finally, the patients pointed out on a check list the presence of postoperative symptoms other than pain at various times after surgery.

Data analysis consisted of calculation of means and standard deviations ($\bar{x} \pm SD$), frequency distributions and Pearson correlation coefficients (r). Chi-square tests and ANOVA were used to evaluate statistical significance of differences between subgroups of patients. Predictors of pain severity were assessed with multivariate logistic regression analysis. For all statistical tests, a P value < 0.05 was considered statistically significant. Data analysis was performed with SPSS/PC software (SPSS Inc., Chicago, IL.).

Results

One hundred and three patients fulfilled the eligibility criteria during the study period, 10 refused to participate, leaving a sample of 93 patients. Four were excluded from the study due to unexpected hospitalisation because of intractable nausea ($n = 2$), sedation ($n = 1$) and pain ($n = 1$). The 89 remaining participants (53 women, 36 men) were aged between 17 to 59 yr (39.6 ± 8.9), and had various educational backgrounds (elementary: 11%; high school: 32%; college: 24%; university: 33%). Thirty-two percent of the participants had undergone day surgery in the past. Patients were classified ASA I (88 %) and II (12%). Type and duration of ambulatory surgery are described in Table I along with the anaesthesia technique and time to hospital discharge. None of the patients received non-steroidal anti-inflammatory drugs (NSAID) or other analgesic medication before surgery. Seventy-five percent of the patients were given opioids per-operatively. The dose expressed in morphine equivalents varied from 2.5 to 27.5 mg (12.1 ± 5.8).

More than forty percent of the patients reported moderate to severe pain during their hospitalisation (worst pain ≥ 4 : 60%; average pain ≥ 4 : 42%). No correlation ($r = 0.08$ to 0.11) was found between the pain intensity ratings and the amount of opioids administered per-operatively. The mean dosage of opioids administered post-operatively was 8.2 ± 4.5 mg with a range from 1.5 to 23 mg (morphine equivalents). The majority of the patients (67%) were given parenteral meperidine in the PACU. Other types of medication which were administered in the PACU or the DSU included hydromorphone (3%), codeine (1%), a combination of acetaminophen and codeine (EmpracetTM) (47%) or acetaminophen alone (3%). In half of the patients (45/89), the analgesic medication was administered upon their request. All except two reported having received the medication within 20 min after demand (< 10 min: $n = 37$, 11–20 min: $n = 6$). Only one patient requested a change in his analgesics therapy. At the time of discharge, more than one third of the patients (35%) had moderate to severe pain (≥ 4). None of the patients was readmitted after hospital discharge.

All patients except four returned the completed questionnaires, for a compliance rate of 94% (84/89). Table II shows the incidence of postoperative symptoms patients reported having at home. Incisional pain was the most prevalent symptom at 24, 48 hr and seven days after surgery. In terms of intensity, 40% of the patients rated their pain as moderate to severe pain (≥ 4) during the first 24 hr. The pain decreased with time but the percentage of patients with substantial pain was still important at 48 hr and on Day 7 (Figure 1).

Patients who had pain at 24 hr, 48 hr and 7 days post-discharge rated the extent to which their pain interfered with various areas of daily functioning using the BPI 0–10 scale (0 = does not interfere, 10 = interferes completely).²¹ As shown in Table III, pain was

TABLE I Surgery and anaesthesia data

	Laparoscopy ($n = 35$)	Knee arthroscopy ($n = 42$)	Shoulder arthroscopy ($n = 5$)	Carpal tunnel decompression ($n = 7$)	Total ($n = 89$)
Type of anaesthesia (n)*					
General	35	30	5	0	70
Regional	0	11	0	0	11
Local	0	26	2	7	35
Duration of surgery (min) [†]	27.3 ± 11.9	42.5 ± 22.9	65.0 ± 20.3	25.7 ± 13.0	36.4 ± 20.9
Time to discharge (min.) ^{†,‡}	394 ± 111	316 ± 114	394 ± 112	182 ± 112	340 ± 126

*Some patients had more than one type of anaesthesia

[†]Values: $\bar{x} \pm SD$

[‡]These times refer to actual discharge rather than to fulfillment to discharge criteria.

severe enough to perturb daily activities. Even on the seventh day post-discharge, 44% of the patients reported substantial impairment (≥ 4) on three or more functions because of pain.

Analgesic medication intake was low overall and decreased with time (Table IV). The most frequently self-administered medication was codeine plus aceta-

TABLE II Percent of patients experiencing postoperative symptoms at home

	24 hr	48 hr	Day 7
	%	%	%
Incisional pain	95	83	64
Nausea-vomiting	27	12	11
Dizziness	22	16	1
Drowsiness	45	26	7
Headache	27	13	16
Sore throat	47	30	5
Hoarseness	40	18	2
Fatigue	54	43	32
Others	15	13	13

TABLE III Impact of pain on various areas of daily functioning

	Time after discharge		
	24 hr	48 hr	Day 7
Number of patients reporting pain in the last 24 hr:	n = 80	n = 70	n = 54
% of patients whose pain interfered importantly (≥ 4) with:	%	%	%
Activity level	73	61	50
Mood	22	23	15
Walking activity	69	49	38
Work	81	68	47
Relations with others	21	20	9
Sleep	47	34	24
Enjoyment of life	9	10	13
Appetite*	26	17	6
Concentration*	38	20	13
% of patients whose pain interfered importantly (≥ 4) with 3 or more functions	77	63	44

*Additional items not included in the BPI

TABLE IV Percent of patients* who took analgesic medication at home

	24 hr	48 hr	Day 3-6	Day 7
	%	%	%	%
Mild opioids†	58	43	32	7
Acetaminophen	15	9	10	2
NSAIDs	3	3	3	1
None	32	51	61	90

*Some patients took more than one type of medication.

†e.g., codeine

minophen (Empracet™) followed by acetaminophen alone.

Among the 28 patients who did not take any medication during the first 24 hr, almost half (46%) rated their worst pain ≥ 4 . On the second and seventh day after surgery, the percentages of patients with pain ≥ 4 who did not take analgesics were 25% and 20% respectively. Only 18% of the patients (15/84) reported using other strategies than medication for controlling their pain. Ice application, relaxation technique and massage were the most commonly utilised.

Data obtained from the Barriers Questionnaire items²⁴ revealed that 62% of the participants strongly believed (rating ≥ 3) that they could easily become addicted to pain medication. Half of the patients (49%) were convinced that it is easier to tolerate pain than the side effects of the analgesic drugs. Patients had several other areas of concerns about pain management but they were of a lesser importance (Table V).

Logistic regression analyses were performed to differentiate patients who experienced substantial pain (≥ 4) from those who did not (< 4). Separate analyses were done for the worst and average pain reported during the first and second 24 hr, and on Day 7. The predictors entered into the analyses were the patient's age, sex, education level, history of past surgery and analgesic intake (yes/no) during the corresponding period. Whether or not the patient had reported high pain levels (≥ 4) during their hospital stay was also included in the model.

Results revealed that the patients who experienced more severe pain during hospitalisation were more likely to have important pain during the first two days at home (First 24 hr - average pain: odds ratio = 5.1, 95% CI: 2.3 = 11.2, $P = 0.001$; worst pain: odds ratio

FIGURE 1 Percent of patients reporting moderate to severe pain at various times following hospital discharge

= 6.3, 95% CI: 2.3-10.4, $P = 0.0002$) (Second 24 hr - average pain: odds ratio = 5.8, 95% CI: 1.6 - 20.4, $P = 0.006$; worst pain: odds ratio = 3.7, 95% CI: 1.3 - 6.4, $P = 0.014$).

Moderate to severe pain during the second 24 hr was more likely in men than in women (average pain: odds ratio = 4.7, 95% CI: 1.3 - 16.2, $P = 0.01$). A positive relationship was also found between analgesic intake and pain severity during the second 24 hr (average pain: odds ratio = 3.6, 95% CI: .96 - 12.9, $P = 0.06$; worst pain: odds ratio = 3.3, 95% CI: 1.2-5.4, $P = 0.02$) and on the seventh day after surgery (worst pain: odds ratio = 14.01, 95% CI: 2.5 - 32.8, $P = 0.002$). No other significant predictor of pain persisting at one week post-operatively was identified.

As the type of surgery could not be entered into the regression analyses due to small sample size of two of the four categories, the effect of this factor was examined by comparing the two largest groups: knee arthroscopies ($n = 42$) and laparoscopies ($n = 35$). In terms of pain intensity and medication intake during the first and second 24 hr, no difference emerged between the two types of surgery. In the following days (Day 3-6), the percentage of patients who took analgesic medication was higher in the knee arthroscopy (55%) than in the laparoscopy group (20%) ($X^2 = 9.7$, $P = 0.002$). The same was true one week after surgery (knee arthroscopy: 17%; laparoscopy: 0%) ($X^2 = 4.6$, $P = 0.01$). The percentage of patients who were still reporting substantial pain (≥ 4) on the seventh day was higher in the knee arthroscopy group (worst pain: 33%) than in the laparoscopy group (12%; $X^2 = 3.1$, $P = 0.08$).

Table VI shows the patients' level of satisfaction about pain management during their hospital stay and at home. The majority of patients were highly satisfied.

Data obtained in a subgroup of patients ($n = 55$) who provided preoperative ratings of expected pain levels revealed no major discrepancy between expected and experienced pain at various times after surgery. The majority of patients experienced the same amount or less pain than expected (difference < 2 on the 0-10) and this was true during the hospital stay (93%), at 24

TABLE V Patient responses (%) to Barriers Questionnaire items.

Items	Do not agree at all			Agree very much		
	1	2	3	4	5	
Pain medicine cannot really control pain.	50	19	12	9.5	9.5	
People get addicted to pain medicine easily.	26	12	23	18	21	
Good patients avoid talking about pain.	64	13	12	4	7	
It is easier to put up with pain than the side effects that come from pain medicine.	37	14	21	16	12	
Complaints of pain could distract a physician from treating my underlying illness.	69	14	10	2	5	
Pain medicine should be "saved" in case the pain gets worse.	46	10	22	11	11	
The experience of pain is a sign that the illness has gotten worse.	50	19	11	12	8	

TABLE VI Patient level of satisfaction with pain management

	At hospital	At home
	% of patients	% of patients
Very satisfied	65	43
Satisfied	32	44
Slightly satisfied	0	1
Slightly dissatisfied	1	1
Dissatisfied	1	1
Very dissatisfied	1	2

hr (86%) and 48 hr (80%) after discharge. On the seventh day, the pain experience exceeded patients' expectations in 26% of the cases (difference ≥ 2).

With regards to the instructions given to the patients, 81% of the participants reported that they felt well prepared to manage their pain at home. When questioned further however about the type and clarity of these instructions, a different picture emerged (Table VII). A good number of patients (33 to 62%) reported that the instructions they were given were either unclear or non-existent with respect to the schedule of their pain medication, dose adjustment and management of side effects. The majority of the patients (87%) were not given any information about non-pharmacological methods of pain control.

TABLE VII Patient responses (%) to questions regarding clarity of the instructions given for pain control at home.

	Pain medication intake (dose & frequency)	Instructions about:		
		Adjustment of pain medication	Control of adverse effects	Non pharmacological methods
	%	%	%	%
No instructions given	13	36	49	87
Instructions unclear or somewhat clear	20	14	13	5
Instructions absolutely clear	67	50	38	8

TABLE VIII Mean $\pm$ SD pain intensity and pain interference scores of patients who did and did not contact health professionals because of pain.

	Contact (n = 22)	No contact (n = 62)
Average pain scores		
24 hr	4.1 $\pm$ 2.2	2.9 $\pm$ 1.8
48 hr	3.7 $\pm$ 2.4	1.9 $\pm$ 1.8
Day 7	2.3 $\pm$ 2.1	1.2 $\pm$ 1.5
Worst pain scores		
24 hr	6.1 $\pm$ 2.5	4.4 $\pm$ 2.5
48 hr	4.9 $\pm$ 2.8	2.8 $\pm$ 2.3
Day 7	4.1 $\pm$ 3.1	1.6 $\pm$ 1.9
Pain interference scores*		
24 hr	4.1 $\pm$ 1.9	3.4 $\pm$ 1.5
48 hr	3.9 $\pm$ 1.7	2.6 $\pm$ 1.7
Day 7	3.4 $\pm$ 2.1	1.6 $\pm$ 1.4

*Pain interference scores were not available for patients who had no pain.

In the week following surgery, one patient in four (25%) reported having contacted a doctor, a nurse or a pharmacist because of pain. Further statistical analysis revealed that these patients had more severe pain in the seven days post-op than those who did not seek out help (average pain: $P = 0.002$; worst pain: $P < 0.001$). They were also more impaired in their daily functioning as revealed by their mean pain interference score ($P = 0.002$). These scores are displayed in Table VIII along with the mean pain intensity ratings. Chi-square tests did not reveal significant associations between the incidence of patients' contacts, clarity of the instructions given for pain control at home, or discrepancies between the experienced and expected pain.

Discussion

Contrary to the common belief that ambulatory surgery is followed only by minor pain, the present study showed that important pain can be experienced during the week following hospital discharge. This pain decreased with time but it was severe enough to interfere with daily functioning in a substantial number of patients. These results are consistent with some earlier reports in adult^{13,18,19} and paediatric patients.¹⁷

The study revealed that the best predictor of severe pain at home was inadequate pain control in the first few hours following the surgery: the more pain the patients experienced during this period, the more likely they were to report severe pain on the first and second day after discharge. These results highlight the importance of providing optimal pain control in the early postoperative period to minimise pain in the following days. Other studies on preemptive or multimodal analgesia also provide indirect evidence to support this view.²⁷⁻²⁹

In common with Chung's survey,¹⁶ the present results indicated that the pain experience varied as a function of the type of surgery. The pain was found to persist for a longer time in patients who had undergone knee arthroscopy than in those who had laparoscopy. More studies are needed to document the pain evolution in other types of ambulatory surgeries in order to establish the patients' analgesic requirements over time.

Most participants in the present study reported being highly satisfied with their analgesic treatment at the hospital and at home despite the fact they experienced relatively high pain levels. The same paradox has been observed in several other surveys with hospitalised patients.⁴⁻⁷ Further data obtained in the present study provide a possible explanation. Little or no discrepancy was found between patient preoperative expectations and postoperative pain experience except on Day 7 where the pain had probably more impact on their daily functioning than expected. The fact that patients consider pain "normal" in the first few days after surgery may explain their high satisfaction levels and highlights the need to educate them about what they can expect to achieve in terms of adequate relief. These results also stress the importance of not using satisfaction ratings in isolation from other data as they can lead to erroneous conclusions about the quality of pain management.

Another measure of the quality of pain management after day surgery is the patient's need to contact hospital or community services. In the present study, one patient in four made such a contact. Other surveys with day-surgery patients^{3,20,30} reported a lower incidence of contact with health care providers due to a problem with pain management ($< 10\%$). However, they surveyed their patients only for 48 hr while the participants in our study were followed for seven days. Differences in hospital analgesic practices or patient education programs may also explain some of the discrepancies observed between these studies.

The present study was confined to patients undergoing arthroscopy, gynaecological laparoscopy and carpal tunnel decompression. These operations have been performed on an ambulatory basis for many years and we cannot generalise our results to more recent or complex types of day-surgery which would presumably result in even more postoperative pain and greater analgesic requirements (e.g., laparoscopic cholecystectomy, anorectal surgeries, hernia repair). Another limitation of our study is the small sample size. One must, however, consider that the response rate was high and patients were followed for a prolonged time. Furthermore, a number of findings are supported by previous research. We do not believe that our institution is unique and

some of the problems elicited in this study may occur in other clinical settings. In the light of these considerations, the following recommendations are made:

Day-surgery patients should be provided with aggressive analgesic treatment during the hospital stay. Every attempt should be made to provide day-surgery patients with optimal pain control while they are at the hospital in order to minimise the pain they will experience at home. Rather than waiting for the patient to ask for pain medication, analgesic drugs should be given regularly and adjusted to individual needs. Recent research provides promising analgesic avenues which are often not used in many clinical settings. For example, Michaloliakou *et al.*²⁹ showed that the concomitant use of local anaesthetics, nonsteroidal antiinflammatory agents and opioid drugs during the peri- and peroperative period can be effective for controlling pain associated with ambulatory laparoscopic cholecystectomy. Other studies on preemptive or multimodal analgesia provide similar observations for other types of surgery (see review by Joshi,³⁰ Souter *et al.*³¹).

The severity and duration of pain after day-surgery should not be underestimated and take-home analgesia protocols need to be implemented. Current prescribing practices often fail to acknowledge that postoperative pain can be important at home and last longer than 24 or 48 hr. Take-home analgesia protocols need to be developed and assessed in order to identify the best combination of analgesic drugs and non-pharmacological interventions that suit different types of surgery. Adequate strategies to treat or prevent drug side effects must also be included in these protocols. An improved control of the pain at home should favour a more rapid return to normal activities and minimise the costs associated with the use of health care services when pain is a problem after hospital discharge.

Patient education is a key factor for optimal pain management after day surgery. As patients' attitudes and beliefs often impede their willingness to use available analgesic drugs and to adhere to a given treatment regimen, they should be given adequate instructions at the hospital to correct possible misconceptions about pain treatment (e.g., fear of addiction). Consistent information about what to expect after surgery in terms of pain and pain relief should also be provided along with clear and concise instructions concerning regular medication intake, dose adjustment, management of drug side effects and use of non-pharmacological interventions (e.g., positioning, cryotherapy, visual imagery).

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