Case Study

A Case Vignette Study to Assess the Knowledge of Pain Physicians of Neuropathic Cancer Pain: Room for Improvement

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Background: In more and more countries, a specific pain education curriculum is provided to instruct pain physicians. However, there is little literature on pain education and in particularly how to evaluate their knowledge. One of the modules interesting to assess is the use of clinical practice guidelines (CPGs) by pain physicians.

Objectives: The aim was to investigate if a case vignette is useful to evaluate pain physicians' knowledge about recommendations contained in CPGs.

Setting: An E-mail survey was conducted with the support of the Société Française d'Etude et de Traitement de la Douleur to all pain specialists (primary and secondary care) in France.

Methods: The survey consisted of a case vignette about a patient with pain suffering from an intractable pancreatic cancer with multiple choice questions about diagnosis and treatment of pain. Percentages of participants who treated the patient as suggested in the CPGs were calculated.

Results: A total of 214 of those invited to participate (921) answered the questionnaire (24%). More than 85% of the respondents declared to know and use CPGs. Half of the participants diagnosed and treated neuropathic pain components in the case vignette according to the recommendations in the CPGs.

Limitations: This exercise needed to be explained: pain physicians should be trained to this kind of questionnaire. It explains the low response rate and the progressive diminution of responders during the questionnaire.

Conclusions: Case vignette is an interesting instrument for pain education because it is cheap, easy to use, and can be repeated. However, training before using this instrument is needed for pain physicians, in particular during their pain education.

Key words: Education, case vignette, cancer pain, neuropathic pain, evidence based-medicine, treatment, guideline, pain physician

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In 2002, the 5 year partial cancer prevalence in the French population (the number of cases of people diagnosed with cancer between 1998 and 2002 and still alive at the end of 2002) was 836,000 (1). In 2011, the incidence of cancer was about 365,000 in the French population (2). In patients with cancer, 64% suffer from pain of which between 19% and 39% suffer from neuropathic pain, which seriously reduces their quality of life on a daily basis (3-6). Two reasons for the high prevalence of neuropathic pain in this patient group can be underlined. Firstly, its diagnosis is difficult, particularly in patients with cancer, because

of the combination with other comorbidities (7-9). Secondly, these patients are known to be resistant to usual nociceptive pain treatments (10,11). Uncontrolled neuropathic pain in patients with cancer increases depression and insomnia rates (12,13). Thus, optimal neuropathic pain diagnosis and treatment are essential.

Clinical practice guidelines (CPGs) for cancer or for neuropathic pain encourage practitioners to detect neuropathic components earlier with screening instruments and physical examination and to treat them with tricyclic antidepressant (TADs) or anticonvulsant drugs (AEDs) in combination with other drugs such as morphine (14-16). Yet previous studies have identified that practitioners do not always follow such CPGs (17-20). It is important to assess whether physicians are familiar with CPGs and use them in their daily practice. Use of a case vignette for this purpose appeared successful regarding a CPG on chronic pain (21-22). A case vignette uses a case study with "text, images or other forms of stimuli to which research participants are asked to respond" (23). This might be a convenient, valid, and inexpensive way to evaluate knowledge of the content of the CPGs on neuropathic cancer pain. To evaluate this method, we chose the population of pain specialists.

In France, advanced training in pain, a 2-year course, has existed since 1998. Physicians with any medical specialty can follow this training. A majority of these are members of the Société Française d'Etude et de Traitement de la Douleur (SFETD). The practitioners in this group are pain specialists and are expected to have detailed knowledge of the recommendations in pain-related CPGs, but this has not been studied yet. We therefore studied whether French pain specialists know and use the most important recommendations from a practice-based perspective on neuropathic pain in patients with cancer.

Method

Participants

All 931 physicians who were registered in the SFETD in March 2012 were invited to take part in the survey.

Survey Mailings

On May 31, 2012, SFETD sent an e-mail to all participants providing a link to an Internet-based survey (Copyright 1999-2012, SurveyMonkey, Palo Alto, CA). Non-responders received a reminder 2 weeks later. Inclusion finished on July 1. Questionnaires were analyzed anonymously and only used if informed consent was given.

The Case Vignette

Initial case vignette

The original Dutch version of the case vignette was developed by 2 Dutch pain anesthesiologists, who respectively took part in and chaired the Dutch cancer pain guideline development group in 2008 (KB, KV). The format was based on prior surveys regarding physician knowledge, communication, and attitudes with respect to patients with cancer (18,19). A forward backward translation procedure was used to develop the French version.

Validation and pre-test

The French case vignette was approved by the board of the SFETD. It was pilot tested with the help of 6 pain specialists (an anesthesiologist, a neurologist, a palliative care specialist, a general practitioner (GP) in a palliative care network at home, and a GP in a pain centre) in order to adapt the case vignette to the recommendations in the French CPGs and to the French health care system. The results of the pilot were discussed by participants and researchers. Table 1 describes the main components of the French CPG used for the construction of this case vignette: the recommendations for each theme, their justification, their clarity, and the referenced question(s) in the case vignette (14-16) (Tables 1 and 2). The final questionnaire, translated into English by a native English speaker, is presented in Appendix 1.

We studied whether the medical specialty influenced adherence to CPGs recommendations. The population of the SFETD included 921 physicians with, among other specialties, 258 anesthesiologists and 277 GPs. Anesthesiologists usually focus on the underlying health problem and are trained to perform invasive treatments, while GPs focus on the global health problem of the patient and home care. Our hypothesis was that GPs would be more influenced by the context at home, while anesthesiologists would be more experienced in the diagnosis of the pain. Furthermore, we expected the latter to propose invasive treatment earlier in the trajectory.

The case vignette was divided into 5 consecutive parts, in which the disease stage worsened. Part I concerned the occurrence of pain in the diagnosis of an intractable pancreatic cancer pain, in a patient with a good performance status, using the WHO pain analgesic ladder. Part II studied the adaptation of the pain treatment, with the patient still having a good performance status. Part III explored how the participants managed

Table 1. *Summary of the French clinical practice guidelines on cancer pain to construct the case vignette.*

Guidelines [a]	Recommendations	References	Question(s)[b]
Pain diagnosis	Necessary to make a diagnosis of the pain (nociceptive and/or neuropathic pain)	Chapter 2.1.2 p. 37-38	1,3,4
Pain assessment	One dimensional scale and multidimensional scales	Chapter 2.1.3 p. 39-42	1,4, 12
Neuropathic pain	Tricyclic antidepressant drugs or anticonvulsants	Chapter 4.1.3 p. 66-67	3, 13, 14
Paracetamol	In 1st line in mild pain	Chapter 3.1.1 p. 58	2,5
NSAIDs	For inflammatory pain or bone pains	Chapter 3.1 p. 58	2,5
Corticosteroids	Elevated intra cranial pressure, medullar compression, peripheral nervous compression, bones metastasis	Chapter 4.1 p. 63-66	14,16
Weak opioids	For moderate pain, precaution with tramadol if epilepsy or association with antidepressants, no association with dextropropoxyphen and carbamazepin	Chapter 3.2 p. 59	2,5
Strong opioids	For moderate to severe pain, titration is always necessary	Chapter 1 p. 15-34	2,5
Opioid route	Oral administration in 1st line, subcutaneous or intravenous in 2nd line	Chapter 1 p. 15, chapter 5.4.1-4 p. 86-87	14
Opioid rotation	In case of intractable side effects or phenomenon of opioid resistance defined by no efficacy and no side events despite a rapid and massive increase of the opioid dose	Chapter 2.4.3 p. 73-77	4,6
Constipation	Prophylactic laxative in case of weak or strong opioids with dietetic rules	Chapter 1.7.1 p. 22-25	6
Nausea	Anti-emetic only if nausea occurs	Chapter 1.7.2 p. 26	6
Sedation	No treatment	Chapter 1.7.3 p. 27	6
Blocks	Celiac plexus block or splanchnic nerve block for the cancer of the pancreatic corpse	Chapter 5.2.1 p. 78-79	7,12,15
Spinal route	Specialized consultation in case of intractable pain	Chapter 5.4.5 p. 87	7,12,15
Insomnia	Amitriptyline is useful in case of insomnia with pain and depression. Benzodiazepine has an interest only in case of acute pain or agitation in patient in late stage. Relaxation and psychological control.	Chapter 4.2 p. 66 Chapter 4.5 p. 68-69 Chapter 5.3.2 p. 82	9, 10
Psychological evaluation	Systematically at the beginning and if psychiatric troubles and for pain assessment	Chapter 2.1.4 p. 42-43	8, 9
Depression	Psychologist consultation and antidepressant drugs	Chapter 2.1.2 p. 66	11
Familial evaluation	By the medical team, contact the family also without the patient	Chapter 2.1.4 p. 43-45	8
Social assessment	By the medical team and the general practitioner	Chapter 2.1.4 p. 45	8

a Cancer pain clinical practice guidelines of 1995 (12-13)
b Questions are presented in appendix 1 with the answers following the clinical practice guidelines (CPGs)

Table 2. *Summary of the French clinical practice guidelines on neuropathic in cancer pain to construct the case vignette.*

Guideline [a]	Recommendations	References	Question(s)[c]
Neuropathic pain[c]	Diagnostic of neuropathic pain in cancer conditions	Chapter 2.3 table 2.2 p. 68	3,13,14
	Tricyclic antidepressant drugs	Chapter 5.1.1.1 p.: 62-63, table 4.1 p. 123	
	Gabapentin	Chapter 5.1.2 table 4.2 p.125	
	Tramadol	Chapter 5.1.3.2 table 4.3 p. 127	

a Neuropathic pain clinical practice guideline 2010 (14)
c Questions are presented in appendix 1 with the answers following the clinical practice guideline (CPGs)

the impairment of the pain: the emotional management for the patient and their family and the care of insomnia. Part IV concerned specifically neuropathic components of the pain: its diagnosis and its treatment in an oncological context. Part V assessed the choice of invasive treatment and the route administration of pain treatment in the patient, in a terminal stage at home (case vignette and questionnaire in appendix).

Statistical Analysis

Statistical analysis was performed with SPSS 20.0 (IBM, New York, NY, USA) and consisted of descriptive statistics: proportions, medians, and range. For inter-group comparisons of continuous or ordinal variables, t tests or nonparametric Wilcoxon rank sum tests were used. Chi-square tests were used to compare categorical variables. All statistical testing was carried out with a P-value < 0.05.

Results

Ten of the 931 mailed surveys were returned unopened, leaving 921 surveys. A total of 214 completed surveys were returned (response rate 24%). Of those, 158 (74%) answered the questionnaire in full.

Demographic Data

Median age of the respondents was 51 (range 28 – 72) years; 54% were women (Table 3). Most of them were GPs (43%) representing 91/277 GPs of the SFETD or anesthesiologists (30%) representing 65/258 anesthesiologists of the SFETD (25%). Two-thirds of the respondents (63%) had been practicing medicine for at least 20 years. More than half (58%) worked in a state hospital; 57% in pain consultations or a pain center. Only 3 participants did not treat patients with cancer.

Table 3. *Demographic and practice characteristics of eligible study respondents.*

Characteristics of participants		Respondents	
		N0 (N=214)	%
Sex	Women	116	54.9
	Men	98	45.1
Medical specialty	Anesthesiology	65	30.4
	General practice	**91**	**42.5**
	Geriatric	12	5.6
	Neurology	5	2.3
	Oncology	11	5.1
	Pediatric	6	2.8
	Psychiatry	1	0.6
	Rehabilitation practice	6	2.8
	Rheumatology	6	2.8
	Other	11	5.1
Number of years of practice after education	Less than 5 years	14	6.5
	5-10 years	16	7.5
	11-20 years	49	22.9
	More than 20 years	**135**	**63.1**
Location of medical practice (multiple response possible)	In an office	24	11.2
	Retiring house	15	7.0
	Public hospital	**124**	**57.9**
	Private hospital	30	14.0
	Non-governmental funding housing	2	0.9
	Pain clinic consultations	**122**	**57.0**
	Oncology	19	8.9
	Palliative care unit	31	14.5
	Other	21	9.8
Number of patients with cancer followed per year	No patient	3	1.4
	<10 patients	34	15.9
	10-49 patients	**74**	**34.6**
	50-100 patients	37	17.3
	> 100 patients	66	30.8
Cancer pain guidelines	Do you know this guideline? Yes	201	93.9
	Do you use this guideline? Yes	190	88.8
Neuropathic pain guideline	Do you know this guideline? Yes	208	97.2
	Do you use this guideline? Yes	202	94.4

Sixteen percent of the respondents treated fewer than 10 patients with cancer per year, 35% between 10 and 49, 17% between 50 and 100, and 31% more than 100 patients yearly. Almost all of them confirmed that they were aware of the existence of a cancer pain CPG (94%) and a neuropathic pain CPG (97%) and that they used them (88% and 94%, respectively). Participants spent 15 minutes on average to complete the questionnaire.

Pain Management in Patients with Cancer by French Pain Specialists and Comparison to CPGs

Table 4 illustrates the number and proportion of respondents who answered the case vignette as recommended in the French CPGs.

In Part I, concerning the management of the initial pain, almost all pain specialists followed the CPG recommendations to assess the pain and made a clear diagnosis (97%).

However, only 60% treated the pain in accordance with the CPGs (which used the WHO analgesic ladder). There was no significant difference between the medical specialties.

In Part II, more than 70% of the participants adapted the treatment after a pain evaluation and followed the WHO analgesic ladder as recommended in the guidelines. The prevention of side effects was in accordance to the CPGs in slightly more than half of the respondents (56%) and 44% had an early proposal for invasive treatment (celiac plexus block or splanchnic nerve block for cancer of the pancreatic corpse). There was no significant difference between the medical specialties.

In Part III, 98% of the respondents proposed a psychologist for the management of depression. Only 24% of the participants proposed a multidimensional assessment of the pain, a consultation with a psychologist and addition of an antidepressant drug for the treatment of depression. There was a significant difference between the percentage of anesthesiologists who followed the CPGs (37%) and GPs (14%, $P = 0.007$).

In Part IV, neuropathic pain was diagnosed and

Table 4. *Case vignette: management of pain in patient with a pancreatic cancer by French pain specialists.*

Number and proportion of French pain specialists who followed the cancer and neuropathic pain clinical practice guidelines	Respondents	
	Number	%
Initial pain management (188 respondents)		
Strategy of the pain management (Question 1)	159	85
Treatment of the pain (Question 2)	112	60
Diagnosis of the pain (Question3)	182	97
Adaptation of pain management (178 respondents)		
Strategy of the pain management (Question 4)	127	71
Treatment of the pain (Question 5)	153	86
Prevention of side effect with strong opioids (Question 6)	100	56
Choice of an invasive treatment (Question 7)	150	44
Impairment of the pain: (172 respondents)		
Mourning management (Question 8)	168	98
Strategy of the insomnia management (Question 9)	55	32
Treatment of insomnia (Question 10)	47	28
Strategy of the depression management (Question 11)	42 a	24
Neuropathic pain management (158 respondents)		
Strategy of the pain management (Question 12)	119	75
Diagnosis of the neuropathic pain (Question 13)	86	54
Treatment of the neuropathic pain (Question 14)	79	50
Pain management in end of life (158 respondents)		
Choice of an invasive treatment (Question 15)	91	57
Choice of administration route after thrombus at home (Question 16)	135	85

a significant difference between anaesthesiologists (37%) versus general practitioners (14%) to follow CPG concerning depression impairment ($P = 0.007$).

treated by more than 50% of the pain specialists. AEDs were proposed by 30% of them (47/158) and TADs by 9% (15/158) or an increase of opioids by 6% (9/158) as presented in the recommendations. Specific treatment of neuropathic pain without specification was quoted by 6% (10/158). Other treatments of the cancer CPG were proposed: ketamine by 11% (18/158) and lidocaine by 2.5% (4/158). There was no significant difference between medical specialties.

In Part V, 57% of the participants chose, as recommended, intrathecal infusion of opioids or a specialized consultation for invasive treatment, with no significant difference between medical specialties. More than 80% of the participants correctly proposed the subcutaneous or the intravenous administration of the medication. There was no significant difference between medical specialties.

Answers were not related to practice location, number of years of practice, number of cancer patients seen per year, gender, or age. The details of each response on the case vignette are described in appendix 1.

Discussion

This study assessed the knowledge and the use of CPGs among French pain specialists concerning neuropathic pain in a patient with cancer. Although over 85% of the respondents claimed they know and use the CPGs, only some of them followed the recommendations regarding this case vignette. Three important messages can be learned from our survey.

Firstly, the management of nociceptive cancer pain using the WHO analgesic ladder was good with over 75% of the participants following the CPGs. This ladder was published in the eighties and is apparently well known by pain specialists (24).

Secondly, there was very little adherence to the CPGs with regard to the management of the impairment caused by the pain such as depression and insomnia. Regarding insomnia, only 26% of the respondents proposed a multidimensional pain assessment. Concerning depression, only 28% of the anesthesiologists compared with 11% of the GPs proposed antidepressant drugs and a consultation with a psychologist. The lack of precision in the CPGs concerning these 2 topics can be underlined (Table 1). There are several explanations for this low number of GPs who adhered to the CPG regarding the treatment of depression. Antidepressants drugs are not proposed as the first choice in the treatment of depression in the French CPG for GPs (25). In 2012, a Dutch study revealed that GPs find it difficult to differentiate between normal and abnormal sadness. They did not strictly apply the criteria of depressive disorder. They rely on their clinical judgment, strongly consider the patient's context and background factors, and rarely prescribe antidepressant drugs (26). Furthermore, a meta-analysis demonstrated the importance of the association of psychotherapy and a pharmacological approach to improve patients with depressive disorders in cancer but without assessing the TADs (27). In these conditions, it is difficult to make a clear recommendation in CPGs.

Thirdly, only half of the respondents followed the CPGs regarding neuropathic pain management. Although this figure can be considered high compared to literature on guideline adhesion, they are quite low in this population of pain specialists with extensive training in neuropathic pain (28). It is probable that these CPGs are not clear enough on neuropathic pain management in patients with cancer (Table 1). In fact, recommendations in CPGs are not sufficiently based on clinical practice and thus not easily applicable (29). Besides, only 2% of the references used in European CPGs on neuropathic pain in cancer concerned patients with cancer (30). There is an urgent need of good randomized controlled trials on this specific population (31). Moreover, no implementation strategies were linked to the publication of the CPGs, although this, together with monitoring its impact, is necessary to improve the use of a CPG (32).

Strengths and Limitations

To our knowledge, this is the first study to investigate the practical knowledge of pain specialists concerning neuropathic pain components in cancer pain. This is also the first vignette study in which practitioners had to deal with pain in patients with cancer. Relevant points for patient care were identified: 1) physicians should realize that they have a responsibility to know and use a CPG and consult the updated CPGs, especially in the case of limited knowledge on a topic, and 2) specific training in pain is beneficial to improve the professional's knowledge.

Although the response rate was low (24%), it was comparable to other French surveys using case vignettes and seemed to be a good representation of the whole population of the SFETD (33,34). However, the respondents of the case vignette were probably more involved in cancer pain management, giving the best responses. Finally, they were not familiar with this method of knowledge assessment. Consequently, those who did not complete the questionnaire probably had difficulty using it. This also explains the decline in the

number of participants from the beginning to the end of the questionnaire.

The aim of this study was not to validate the case vignette, but to assess the knowledge of pain physicians. However, we pilot tested the Dutch and the French case vignette to improve the quality of the case vignette.

Conclusions

A case vignette seems to be an interesting method for evaluating the knowledge and application of CPGs in pain management. Specific case vignettes should be developed and tested for several aspects of pain education as they are an inexpensive tool, convenient for assessing this implementation in a large group of physicians, and are easy to repeat, for example after a training or implementation program (35-38). Structured training and evaluations resulting in a diploma will improve the knowledge of the practicing physicians about specific problems. There is a need to implement the CPG on neuropathic pain in France, probably with specific communication on this subject and a dedicated educational module in the curricula. Case vignettes assessing specific key messages of pain recommendations contained in CPGs could be a way to evaluate the level of the educational module and adapt the training.

Appendix

PART I- INITIAL PAIN MANAGEMENT IN CANCER

Mrs. A is 45-year-old. She is married and has got 2 children (12 and 15 years old). After the discovery of a silent icterus (abnormal blood chemistry), a non-operable pancreas cancer is diagnosed. The family is informed that the prognosis is bad. The (bile) excretion was secured with a stent in the bile duct. The patient is in good conditions and had a good appetite. Mrs. A. received chemotherapy on her demand.

Few weeks after leaving the hospital, she consults you because she has pain in the upper abdomen. It is vise like pain with a stabbing component.

1) You decide the following strategy (many possible answers):
   A. Pharmacological treatment
   B. Pain measurement with one-dimensional scale (only intensity of the pain)
   C. Pain measurement with multidimensional scale (pain intensity and others dimensions as social, psychological or quality of life impairment)
   D. Others investigations for diagnosis, precise:

2) The pharmacological treatment included (if you choose an association, cross all boxes you need):
   A. Paracetamol
   B. Non Steroid Anti-Inflammatory drug (NSAID)
   C. Corticosteroids in short cure
   D. Weak opioids
   E. Strong opioids
   F. Other, precise:

3) What kind of pain is it?
   A. Nociceptive pain
   B. Neuropathic pain
   C. Mixed pain
   D. Visceral pain
   E. Other, precise:

PART II- ADAPTATION OF PAIN MANAGEMENT IN CANCER

The pain is acceptable during a few months. After a while, the pain increases. The patient suffers from pain in her upper abdomen; mainly the night and her pain make her wake up early in the morning.

4) You decided the following strategy (many answers possible):

A. Adaptation of the pharmacological treatment
B. Research for constipation
C. Pain measurement with one-dimensional scale (only intensity of the pain)
D. Pain measurement with multidimensional scale (pain intensity and others dimensions as social, psychological or quality of life impairment)
E. Invasive pain treatment (nerve block)
F. Others investigations for diagnosis, precise:

5) The adaptation of the pharmacological treatment included (if you choose an association, cross all boxes you need):

A. Add or increase paracetamol
B. Add or increase a Non Steroid Anti-Inflammatory drug (NSAID)
C. Add or increase a short cure of corticosteroids
D. Add or increase weak opoioids
E. Add or increase strong opioids

6) To treat or avoid possible side effects of strong opioids, you prescribe systematically the following drug (many possible answers):

A. Laxative
B. Anti-emetic
C. A treat to avoid sedation
D. Other, precise:

7) An invasive pain treatment can be:

A. Chordotomy
B. Celiac plexus block
C. Splanchnic nerve block
D. Hypogastric nerve block
E. A "lower end" block

PART III - MANAGEMENT OF PATIENT PAIN AND ENVIRONMENT

8) The patient worries about her children reactions concerning her future death. In addition to a discussion with her general practitioner, you proposed to help her to meet (many answers possible):

A. A psychologist
B. A social worker
C. A pastoral assistant
D. Other, precise:

9) The pain decreases after your treatment but the problem of sleepiness are still present. You decided (many answers possible):

A. Adaptation of the pharmacological treatment
B. Pain measurement with one-dimensional scale (only intensity of the pain)
C. Pain measurement with multidimensional scale (pain intensity and others dimensions as social, psychological or quality of life impairment)
D. Psychological consultation
E. Other proposal, precise:

10) The adaptation of pharmacological treatment included (many answers possible):

A. Add a benzodiazepine
B. Add antidepressant drug
C. Use methylphenidate
D. Other, precise:

11) The patient always present insomnia and she feels a lot of fear of suffering. You decided the following strategy (many possible answers):

A. Discussion about her case in a multidisciplinary team meeting
B. Refer the patient to a clinical psychologist
C. To meet pastoral assistance
D. Refer the patient to the nurse specialized in cancer announcement
E. Prescribe an antidepressant drug
F. Propose hospitalization at home
G. Other, precise:

PART IV - MANAGEMENT OF NEUROPATHIC CANCER PAIN

Few days after, the pain increases and is located in the whole abdomen. The status of the patient has decreased drastically and the chemotherapy was interrupted because of the progression of the disease.

12) The patient had stabbing pain and paroxysmal pain and permanent burning gastric pain. The viselike pain has increased. She suffers from paresthesia in her legs. You decided the following strategy (many possible answers):
   A. Adaptation of the pharmacological treatment
   B. Pain measurement with one-dimensional scale (only intensity of the pain)
   C. Pain measurement with multidimensional scale (pain intensity and others dimensions as social, psychological or quality of life impairment)
   D. Invasive pain treatment (nerve block)
   E. Others investigations for diagnosis, precise:

13) In your opinion, what kind of pain is it?
   A. Nociceptive pain
   B. Neuropathic pain
   C. Mixed pain
   D. Visceral pain
   E. Other, precise:

14) Despite an optimal titration of strong opioids, the pain persists. Which adaptation(s) of the pharmacological treatment can be proposed?
   A. Increase opioids dose
   B. Opioids rotation
   C. Intravenous administration of opioids
   D. Adjuvant treatment, precise:

PART V- MANAGEMENT OF PAIN IN END OF LIFE –

15) An invasive treatment can be:
   A. Chordotomy
   B. Celiac plexus block
   C. Splanchnic nerve block
   D. Hypogastric nerve block
   E. A "lower end" block
   F. Intraspinal administration of opioids
   G. Other, precise:

The patient doesn't want an invasive pain treatment at this moment. The disease is complicated with a venous pelvic thrombosis and the patient has to take acenocoumarol. After a while, the situation of the patient becomes worse and worse. The patient is very tired. She cannot eat, drinking is an effort. The life expectancy is estimated between one and two weeks. The opioids cannot be taken orally and the intensity of the pain is high.

16) You choose the new administration of opioids at home:
   A. Intraspinal administration
   B. Sub-cutaneous administration
   C. Transcutaneous administration
   D. Intravenous administration
   E. Other, precise:

References

1. Colonna M, Danzon A, Delafosse P, Mitton N, Bara S, Bouvier AM, Ganry O, Guizard AV, Launoy G, Molinie F, Sauleau EA, Schvartz C, Velten M, Grosclaude P, Tretarre B. Cancer prevalence in France: Time trend, situation in 2002 and extrapolation to 2012. *Eur J Cancer* 2008; 44:115-122.
2. Institut National du Cancer. La situation du cancer en France en 2011. Collection Rapports et Synthèses. Institut National du Cancer. URL in December 18, 2012. www.e-cancer.fr
3. Rayment C, Hjermstad MJ, Aass N, Kaasa S, Caraceni A, Strasser F, Heitzer E, Fainsinger R, Bennett MI; On behalf of the European Palliative Care Research Collaborative (EPCRC). Neuropathic cancer pain: Prevalence, severity, analgesics and impact from the European Palliative Care Research Collaborative-Computerised Symptom Assessment study. *Palliat Med* 2013; 27:714-721.
4. Bennett MI, Rayment C, Hjermstad M, Aass N, Caraceni A, Kaasa S. Prevalence and aetiology of neuropathic pain in cancer patients: A systematic review. *Pain* 2012; 153:359-365.
5. Caraceni A, Portenoy RK. An international survey of cancer pain characteristics and

syndromes. IASP Task Force on Cancer Pain. International Association for the Study of Pain. *Pain* 1999; 82:263-274.

6. van den Beuken-van Everdingen MH, de Rijke JM, Kessels AG, Schouten HC, van Kleef M, Patijn J. Prevalence of pain in patients with cancer: A systematic review of the past 40 years. *Ann Oncol* 2007; 18:1437-1449.
7. Naleschinski D, Baron R, Miaskowski C. Identification and treatment of neuropathic pain in patients with cancer. *Clinical Updates, Pain* 2012: 2: XX:1-4.
8. Cleeland CS, Farrar JT, Hausheer FH. Assessment of cancer-related neuropathy and neuropathic pain. *Oncologist* 2010; 15 Suppl 2:13-18.
9. Haanpää M, Attal N, Backonja M, Baron R, Bennett M, Bouhassira D, Cruccu G, Hansson P, Haythornthwaite JA, Iannetti GD, Jensen TS, Kauppila T, Nurmikko TJ, Rice AS, Rowbotham M, Serra J, Sommer C, Smith BH, Treede RD. NeuPSIG guidelines on neuropathic pain assessment. *Pain* 2011; 152:14-27.
10. Ventafridda V, Tamburini M, Caraceni A, De Conno F, Naldi F. A validation study of the WHO method for cancer pain relief. *Cancer* 1987; 59:850-856.
11. Laird B, Colvin L, Fallon M. Management of cancer pain: Basic principles and neuropathic cancer pain. *Eur J Cancer* 2008; 44:1078-1082.
12. Breivik H, Cherny N, Collett B, de Conno F, Filbet M, Foubert AJ, Cohen R, Dow L. Cancer-related pain: A pan-European survey of prevalence, treatment, and patient attitudes. *Ann Oncol* 2009; 20:1420-1433.
13. Attal N, Lanteri-Minet M, Laurent B, Fermanian J, Bouhassira D. The specific disease burden of neuropathic pain: Results of a French nationwide survey. *Pain* 2011; 152:2836-2843.
14. SOR: Standard, Options, Recommandations sur les traitements antalgiques de la douleur cancéreuse par excès de nociception. Standards Options et Recommandations. 2002.
15. ANDEM. La prise en charge de la douleur du cancer chez l'adulte en médecine ambulatoire. Recommandations pour la pratique clinique. ANDEM. (Octobre 1995).
16. Martinez V, Attal N, Bouhassira D, Lanteri-Minet M. Douleurs neuropathiques chroniques: Diagnostic, évaluation et traitement en médecine ambulatoire. *Douleurs* 2010; 11 :3-21.
17. Cabana MD, Rand CS, Powe NR, Wu AW, Wilson MH, Abboud PA, Rubin HR. Why don't physicians follow clinical practice guidelines? A framework for improvement. *JAMA* 1999; 282:1458-1465.
18. Henderson TO, Hlubocky FJ, Wroblewski KE, Diller L, Daugherty CK. Physician preferences and knowledge gaps regarding the care of childhood cancer survivors: A mailed survey of pediatric oncologists. *J Clin Oncol* 2010; 28:878-883.
19. Helft PR, Hlubocky F, Daugherty CK. American oncologists' views of internet use by cancer patients: A mail survey of American Society of Clinical Oncology members. *J Clin Oncol* 2003; 21:942-947.
20. Zeitoun AA, Dimassi HI, Chami BA, Chamoun NR. Acute pain management and assessment: Are guidelines being implemented in developing countries (Lebanon). *J Eval Clin Pract* 2013; 19: 833-839.
21. Rutten GM, Harting J, Rutten ST, Bekkering GE, Kremers SP. Measuring physiotherapists' guideline adherence by means of clinical vignettes: A validation study. *J Eval Clin Pract* 2006; 12:491-500.
22. Bishop A, Foster NE, Thomas E, Hay EM. How does the self-reported clinical management of patients with low back pain relate to the attitudes and beliefs of health care practitioners? A survey of UK general practitioners and physiotherapists. *Pain* 2008; 135:187-195.
23. Hughes R, Huby M. The application of vignettes in social and nursing research. *J Adv Nurs* 2002; 37:382–386.
24. World Health Organization. Cancer pain relief. Geneva, 1986.
25. HAS. Dépression de l'adulte: épisode isolé pris en charge par le psychiatre en ambulatoire. Référentiel d'évaluation. 2005.
26. Warmenhoven F, van Rijswijk E, van Hoogstraten E, van Spaendonck K, Lucassen P, Prins J, Vissers K, van Weel C. How family physicians address diagnosis and management of depression in palliative care patients. *Ann Fam Med* 2012; 10:330-336.
27. Hart SL, Hoyt MA, Diefenbach M, Anderson DR, Kilbourn KM, Craft LL, Steel JL, Cuijpers P, Mohr DC, Berendsen M, Spring B, Stanton AL. Meta-analysis of efficacy of interventions for elevated depressive symptoms in adults diagnosed with cancer. *J Natl Cancer Inst* 2012; 104:990-1004.
28. Mickan S, Burls A, Glasziou P. Patterns of "leakage" in the utilisation of clinical guidelines: A systematic review. *Postgrad Med J* 2011; 87:670-679.
29. Piano V, Schalkwijk A, Burgers J, Verhagen S, Kress H, Hekster Y, Lanteri-Minet M, Engels Y, Vissers K. Guidelines for neuropathic pain management in patients with cancer: A European survey and comparison. *Pain Pract* 2013; 13:349-357.
30. Piano V, Verhagen S, Schalkwijk A, Burgers J, Kress H, Treede RD, Hekster Y, Lanteri-Minet M, Engels Y, Vissers K. Diagnosing neuropathic pain in patients with cancer: Comparative analysis of recommendations in national guidelines from European countries. *Pain Pract* 2013; 13:433-439.
31. Piano V, Verhagen S, Schalkwijk A, Hekster Y, Kress H, Lanteri-Minet M, Burgers J, Treede RD, Engels Y, Vissers K. Treatment for neuropathic pain in patients with cancer: Comparative analysis of recommendations in national clinical practice guidelines from European countries. *Pain Pract* 2013 Jan 30. EPub Ahead of print.
32. Grol R, Grimshaw J. From best evidence to best practice: Effective implementation of change in patients' care. *Lancet* 2003; 362:1225-1230.
33. Ventelou B, Rolland S, Verger P. A case study on the substitution effect between the length of GP consultation and drug prescribing practices. *Healthc Policy* 2010; 5:58-68.
34. Falchi A, Lasserre A, Gallay A, Blanchon T, Sednaoui P, Lassau F, Massari V, Turbelin C, Hanslik T. A survey of primary care physician practices in antibiotic prescribing for the treatment of uncomplicated male gonoccocal urethritis. *BMC Fam Pract* 2011; 12:35.
35. Peabody JW, Luck J, Glassman P, Dresselhaus TR, Lee M. Comparison of vignettes, standardized patients, and chart abstraction: A prospective validation study of 3 methods for measuring quality. *JAMA* 2000; 283:1715-1722.
36. Lucet JC, Nicolas-Chanoine MH, Lefort A, Roy C, Diamantis S, Papy E, Riveros-Palacios O, Le Grand J, Rioux C, Fantin B, Ravaud P. Do case vignettes accurately reflect antibiotic prescription? *Infect Control Hosp Epidemiol* 2011; 32:1003-1009.
37. Peabody JW, Luck J, Glassman P, Jain S, Hansen J, Spell M, Lee M. Measuring the quality of physician practice by using clinical vignettes: A prospective validation study. *Ann Intern Med* 2004; 141:771-780.
38. Dresselhaus TR, Peabody JW, Luck J, Bertenthal D. An evaluation of vignettes for predicting variation in the quality of preventive care. *J Gen Intern Med* 2004; 19:1013-1018.