An overview of pancreatic cancer nursing essay

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Pancreatic cancer is the fifth leading cause of cancer death in women in the United States normally peaking after the sixth decade of life (Feldman, et al 2006). In fact only 3% of patients live beyond the 5 year survival period (American cancer society 2009). Its poor prognosis makes it one of the deadliest malignancies. This is because, the pancreas' anatomic location and the tumour's biological nature makes it so difficult to detect. To make matters worse its signs and symptoms do not appear until later on stages of the cancer. (Cubilla AL, Fitzgerald PJ, 1985)Most commonly the pancreatic cancer's pathological form is adenocarcinoma, originating from the cells lining the pancreatic duct (319). Pancreatic tumours develop in both the exocrine and endocrine parenchyma. However, roughly 90% of tumours develop from the exocrine pancreas. The exocrine pancreas contains the acinar and ductal epithelium; acinar cells produce digestive enzymes while the ductal cells are responsible for secretion of electrolytes and fluids as well as the transmittance of pancreatic juices to the duodenum. (320)Exposure to cigarette smoking, chemical toxins and a diet high in fat and meat are the known risk factors associated with pancreatic cancer. (Gold EB, Gordis L, Diener MD et al, 1985) (303)Although treatment options are limited for such a disease, it is now accepted that providing palliative care as early as possible is correlated with a positive quality of life in the remainder length of life (W. H. O, 2002) (6 o palliative article). The World Health Organisation defines palliative care as " the active total care of patients whose disease is not responsive to curative treatment. Control of pain, of other symptoms, and of psychological, social and spiritual problems, is paramount. The goal of palliative care is achievement of the best quality of life for patients and their

families." Palliative care advocates a number of principles which revolve around the patient’s needs. Providing pain relief and controlling other distressing symptoms is essential for a better quality of life as to positively influence the course of illness. Another principle that addresses the use of conjunctive therapy. In the case of Mrs. Camilleri, chemotherapy plus radiation therapy may be given together for better final results. In certain cases, the health care team fail to recognise the importance of integrating the spiritual and psychological aspects of care. Since these patients are facing a life limiting disease, they go through several life adjustments and as nurses helping them find their spirituality may help them cope better with their current challenges. (Proot, 2009). Once the patient and the family members are informed of such prognosis, it is now not only the patients that will need a support system but also the family members. In this case the patient is well supported by her sons and husband, however offering a team approach to address the patient and family needs including bereavement and counselling may still be useful. The health care’s team main goal is to help the patient live the remainder of her life as actively as possible. However, such goals do not intend to postpones or hasten death but regards dying as a natural process. Discussing Mrs. Camilleri’s end of life care preference should preferably occur before later stages in the illness to help her achieve a " good death" in which she could have control in decision making and medical management (Smith 2000, NHS Lothian 2009). The nurse should observe the family support system, communication and coping patterns as to adopt a teaching style adequate for the family. Education may increase compliance and be prepared for the diseases’ and treatment side

effects. Listening is the most important skill to be able to communicate well with the family and find out the patient's needs and wants. In Malta, palliative care is mainly offered through hospice movement Malta. Pain is present in 80-85% of patients with advanced metastatic pancreatic cancer (Berry et al 2010), but what is pain? According to the International Association for the study of pain IASP (2011), pain is an unpleasant experience which may be related to the actual sensory pain due to the actual or possible tissue damage, or related to emotional stress which may present itself as amplified pain symptoms. This phenomenon of course varies with the patient's pain threshold. This definition accounts for the pathophysiological and psychological origin of pain. Among the health care professionals, nurses have a unique role in observing the patient's pain while she is attending to her daily routine like showering. Additionally such information needs to be passed on physicians in order to plan her treatment management. This has been proven to improve outcomes in care (Gutierrez 2012). The nature of pain will evolve and vary as the disease progresses, thus treatment options must change according to Mrs. Camilleri's specific complains. The first essential step with identifying the patient's current complains to provide pain relief, is assessment via some of the following pain assessment modalities. It is especially important to not only assess the symptom but asses the patient holistically. To do so a couple of principles which should be incorporated in assessment include; establishing a trustful relationship with the patient, identifying the needs of both the patient and her family, making a nurse diagnosis as well as prioritising problems and finally, incorporating a multidisciplinary approach (Pearce C, Lugton J, 1999)

(62 on palliative article). Components of pain assessment include the use of undimensional measurement tools that measure the intensity along with quality, duration, sensation and its effect on the patient’s life. Such models can be useful with history taking as pain can be difficult for patients to describe (Ramage- Morin 2008). Patient history is crucial for diagnosis of pain, in fact according to Simon. C (2008) " SOCRATES" pain assessment questionnaire can be useful with palliative care patients to obtain a pain history and current condition. The questionnaire includes the site of pain; and whether the pain is radiating to any other sites. The onset and temporal pattern of pain; as to find out when the pain started, how often it occurs and its intensity. The character of pain, in which describing what type of pain it is, that it, dull, sharp, stabbing or burning. The patient is also asked whether the pain is aggravated at any time of the day in relation with any activities and if so what are the exacerbating or relieving factors. Any associated features with pain like nausea and vomiting are also documented to assess how these symptoms are affecting the patient’s physical and social function. The final step to the questionnaire is rating the pain intensity on a scale of 0 to 10. Several simple tools are available to quantify the intensity of this pain including numeric scale and direct observation scale. Which pain score to use depends solely on the patient’s state, for example with cognitive impairment or loss of consciousness direct observation scores are used. The NHS Tayside advocates the use of the Edmond Functional Assessment Tool (EFAT) Capital Health Authority (2001). According to Kaasa et al 1997, this tool is best for palliative care patients. With this scale the nurse can easily assess Mrs. Camilleri’s health as it takes account of quality of a patient’s

sleep, nausea, fatigue with a scaling from 0 (no pain) to 10 (most severe pain). As mentioned previously, direct observational scale is another scale to help evaluate the patient maybe at a later deterioration stage. Several aspects of the patient’s behaviour including; visualisation, facial expression and body movements are assessed for approximately five minutes along with other activities of daily living (Andrade et al 2011). Such assessments can complement patient care as it enables the health care team to start appropriate treatment that over time will help Mrs. Camilleri with her uncontrolled symptoms. Pancreatic cancer pain usually manifests itself as abdominal pain, and its management is one of the most important aspects of care. The best management of pain is aggressive therapy with constant assessment to maintain the patient’s quality of life. Curative surgical procedures are not always an option at this stage and only 8%- 20% of patients with pancreatic cancer have been estimated to be candidates for resection (Morales et al 2011). This is due to the growth of the tumour and its metastases to the liver, preventing it from being removed. Treatment is therefore limited to palliation of symptoms (Lillemoe KD, Barnes SA 1995 (385 book), relieving symptoms as bile duct or intestinal duct obstructions (Lillemoe KD 1995 (328)). Nevertheless the burden of surgery must not outweigh its advantages. At the end of the day it depends on Mrs. Camilleri choice of operative or non-operative palliation. This progressive and debilitating disease represents itself with abdominal pain which may radiate to the back, anorexia, cachexia, weight loss and ascites (Brennan MF, Kinsella TJ, Casper ES 1993). In fact Mrs. Camilleri has been specifically complaining about her pain levels and nausea. Pain may be due to a variety

of reason, initially the pain may be due to the irritation and edema of the inflamed pancreas, and as the disease progresses increasing tension and obstruction of the pancreatic ducts contribute to pain (Berry et al, 2010). Cancer may develop in the head, neck or tail of the pancreas thus clinical manifestations depend on the location, 70% of pancreatic cancer originate in the head (Zinner & Ashley 2007- MEDICAL SURGICAL)Patients like Mrs. Camilleri require a personalised multidisciplinary approach to care. The most effective approach to pain therapy is preventing the pain from peaking by administering the appropriate pain medication routinely by the clock and not " on request". Oral, Parenteral, or transdermal opioids, sedatives, nerve blocks or positioning may provide relief. Mrs. Camilleri may be placed on the 3-step analgesic ladder by WHO (1996), based on her pain assessment. Pain can be classified as mild, moderate to severe. Mild pain is normally treated with a non-opioid analgesic such as NSAIDS like Ibuprofen. Moderate pain can be treated with weak opioids such as Codeine while severe pain can be treated with strong opioids like Morphine (Quigly 2005). Constipation may be induced from opioids because gastric motility is reduced; this can be avoided by laxatives along with appropriate education of the patient and her family (Draper 2010). Constipation should not be overlooked as it may also contribute to pain. Another palliative care step may include a nerve block of the celiac nerve plexus, injecting corticosteroids and analgesic medications intraoperatively or endoscopically. This provides the patient with very effective temporal pain relief, as it acts directly o the nerves which carry painful stimuli from the diseased pancreas to the brain. Since Mrs. Camilleri is also suffering from liver metastases, ascites may occur. This large

collection of abdominal fluid increases abdominal girth further increasing abdominal pain. At first the physician may prescribe diuretics but eventually ascetic taping may be required. Jaundice may also result from liver damage occurring in the majority of pancreatic cancer patients. It also causes debilitating abdominal pain symptoms (Walsch. D 1996). Palliation of jaundice can be provided with endoscopic or percutaneous procedures like insertion of biliary stents. Pancreatic cancer may be resistant to standard radiation therapy thus the patient may be treated with both chemotherapy and radiation therapy (5-fluorouracil , Leucovorin and gemcitabine). This combination is said to give better patient outcomes (Moertel CG, 1981) Gemcitabine seems to be an effective radiosensitizer for combination with radiation as it increases the sensitivity of radiation (Magnino et al, 2005 37 – current treatment strategies article). Gemcitabine has been shown to provide both a clinical benefit and a small improvement in survival as compared with fluorouracil in patients with metastatic pancreatic cancer (Burris HA, Moore MJ, Anderson J et al, 1997). It is the currently the standard care for patients with metastatic cancer. (Feldman et al 2006 MEDICAL SURGICAL)Because in the majority of cases chemotherapy is again not curative for metastatic cancer, its palliative benefits must be weighed against its toxic effects. Finally, it depends on Mrs. Camilleri preference whether to take chemoradiation or not and how well she tolerates it. Elderly patients have been considered a high risk due to physiological and pharmacological reasons and may result in greater toxic levels. (Morizone et al, 2005) 38Therapy typically consists of a 5- to 6- week course of external beam therapy to tumour siteIf Mrs. Camilleri decides to go with

chemoradiation, as nurses the patient should be taught about the potential adverse reactions such as further nausea, diarrhoea, fatigue etc. She should also be informed to drink a lot of fluids and to report any vomiting or diarrhoea. Pain control may also include non pharmacological strategies to improve comfort and improve the patient's ability to perform normal activities. These therapies include relaxation, distraction, massage, hypnosis, physical therapy, learning to position for comfort, learning coping skills and emotional support and counselling. Special mattresses are also beneficial to protect bony prominence as the patient starts to lose weight, to relieve discomfort and further pain. The nurse should also advice the patient to avoid heavy meals as pain may be exacerbated (Brescia 2004 – here and now of pc). Patient and family education is an important part of helping all involved in the care of the patient. Whatever management is undertaken, pain cannot be left untreated even in the later stages as pain can have profound negative effects on the psychosocial and physical well being. This subjects Mrs. Camilleri to unnecessary anxiety, diminishing her quality of life. Additionally, later signs and symptoms include; nausea, diarrhoea, constipation, steatorrhea and hyperglycaemia. In this case Mrs. Camilleri is also complaining about nausea. Nausea is an unpleasant subjective vague sensation of sickness which may or may not be accompanied by vomiting. With nausea an accurate, ongoing assessment and documentation are critical for optimal management. Initially a full history is needed. This includes a full drug and cancer treatment history, presence or absence of flatulence and a bowel history. The information the nurse must gather for an adequate assessment include; onset duration, frequency, intensity,

aggravating and ameliorating factors and effects on the quality of life and daily living brought about by nausea. Assessment of the mouth may confirm thrush; symptom of which being nausea. Palpitations of the abdomen may confirm hepatomegaly, enlargement of the liver, also known to bring about nausea. The nurse should consider all risk factors and establish a baseline assessment (Wickham R, 1989). Mrs. Camilleri is also encouraged to keep a daily dairy with the onset and details of her symptoms (Goodman M, 1987). (48)Performing investigations may be beneficial to help identify the main causes of Mrs. Camilleri source of nausea and abolish this symptom. Initially, urea, electrolytes, liver function and calcium tests are ordered. If nothing out of the ordinary results, abdominal x-ray and CT may be necessary. (REFERENCE)The cause of this symptom is varied and can be due to a reaction to chemoradiation, new opioids or a sign of mechanical obstruction of the small bowel. The reason for nausea must be sought out and dealt with, as persistent nausea exacerbates diminished quality of life to the extent that the patient is not able to eat or drink. (47 Wickham R, 1989)Anti-emetic agents may be prescribed to manage and prevent nausea and its complications. Several classifications of drugs have an anti-emetic effect, including serotonin antagonists, dopamine antagonists, corticosteroids, cannabinoids etc. However the type-3 Serotonin antagonists are particularly effective with treating chemotherapy induced nausea. (50 Freeman AJ, 1992) Corticosteroids like dexamethasone may be used in combinations with serotonin antagonists when nausea is still not controlled. (95 Cole RM et al, 1994)Metoclopramide is a very useful drug for nausea caused by gastric irritation, gastric obstruction or unexplained chronic nausea. (106 Tonnessen

TI, 1990)Although antiemetics are the first line of control for nausea, some non-pharmacological interventions may further enhance the anti-emetic effect and patient self control. Behavioural interventions like relaxations with imagery, desensitization and attention distraction. Such interventions have been used to treat cancer-related symptoms. (124 Redd WH, 1994)Acupressure is another form of non-pharmacological therapy to treat postoperative and chemotherapy nausea. A specific point, the P6, located on the inner wrists about 3 finger breadths above the skin crease is stimulated. (127, Dundee JW, et al 1989). Acupressure can be applied using commercial elastic wristbands; like BioBands. (128, McMillan C, 1991)Nutritional modifications and dietary tips are essential to reduce nausea, Mrs. Camilleri should be advised to eat cold or room temperature foods, as they give off less odour than hot foods. Related suggestions are that Mrs. Camilleri cooks between chemotherapy regimens when she is not feeling nauseated and freezes food for later use. The patient should be informed that high fat food delay gastric emptying, increasing nausea while sour food can increase comfort. Whereas spicy, salty or sweet food aggrevate nausea (Hogan CM, 1990 (130)). Favourite foods should also be avoided on the day of chemotherapy so that the patient would not develop food aversions. Although therapeutic options are improving, metastatic pancreatic cancer treatment remains largely palliative care.