

Example of pathophysiology case study

[Countries](#), [Canada](#)



Oncologist

An oncologist is a physician who uses ionizing radiation or other methods in the treatment of cancer. They help in the diagnosis, staging of cancer and grading the nature of cancer. The three specialties in the treatment of cancer are the radiation, medical and surgical oncology specialties and all are used in the treatment of cancer. The Royal College of Physicians is responsible for certifying candidates eligible for certification in oncology and this ensures that qualified individuals offer services in the most appropriate way possible. To become a medical oncologist one has to pass the medical oncology certification examination. Medical oncology mainly deals with tumors that may occur in the organ systems. This implies that the medical oncologist is responsible for providing multidisciplinary care to the cancer patients and will be involve in surgery, radiotherapy, and chemotherapy among other responsibilities.

In oncology, the patient's clinical history is of significance. Such information allows the medical oncologist to carry out biopsy and can be able to grade the type of cancer by employing diagnostic tools such as CT scans, MRI scans, and X-ray's.

The urinalysis was carried out to detect whether Mr. Pinto had a kidney infection. Ideally, the doctor was to check for presence of protein to establish if there is kidney disease. Kidney disease is responsible for causing protein to appear in the urine. Performing the ultrasound may reveal any unusual growths or lesions that may be present in the kidney (Quaia, 2011). The biopsy will involve the use of needles that access the required tissue for analysis (Greenberg, Cheung, and MD Consult, 2009). Under a microscope,

the doctor would observe rapidly moving cells that have distinct hooks at the ends (Engelkirk, and Duben-Engelkirk, 2008). The most probable parasite would be the *Leptospira* parasite (Schlossberg, 2008). This parasite is most common in muddy areas with presence of stagnant water and is most frequented by wild animals. This is similar to Mr. Pinto's location.

Health Sciences North is a hospital located on Ramsey Lake road in the city of Sudbury, Ontario, Canada. This is the only center in the region that deals with trauma transfers. The health center has well-trained healthcare personnel and is well equipped with modern technologies, which enable it to provide efficient and quality service to its patients. It has the leading regional programs in cardiac care, oncology, nephrology, trauma, and rehabilitation (Ontario health care professionals, 2013).

Tumors may be graded as malignant if they are resistant to treatment and may spread to other locations of the body. The benign tumors are tumor cells that grow in one location and cannot spread by metastasis. The benign tumors lack the ability to invade to distant sites in the body (Reisner, 2013). According to Reisner (2013), malignant tumors have the capacity to kill the host whereas benign tumors spare the host. However, some malignant tumors such as breast cancer pose no immediate threat to life and thus it is recommended for women to undergo frequent breast screening, as this would help to make the treatment more effective. Malignant tumors can be suppressed through chemotherapy. The benign tumors can be removed through surgery. For effective treatment of cancer, early detection is essential and this can be done through screening. An additional method in

the treatment of tumors includes radiation therapy (Ontario health care professionals, 2013).

References

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