

*Manitoba Health, Healthy Living & Seniors (MHLS) supports reporting and learning from patient safety events. The focus of a patient safety review is to closely look at the health care system that surrounds and interacts with those giving and receiving care. The goal is to identify risks to patient safety and recommend the most effective ways to minimize risk and improve the delivery of healthcare.*

## **Patient Safety Learning Advisory**

### **Delay in Treatment**

**Summary:**

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A patient presented to the emergency department with unspecified chest pain. Treatment was initiated and a d-Dimer test was completed. A d-Dimer test (measures the amount of a substance that is released when a blood clot breaks up and is a test used to assist in the diagnosis of a pulmonary embolism). The d-Dimer result indicated a greater than (>) 230 ng/mL which is elevated beyond a normal range; however the protocol to treat a pulmonary embolism was not continued as the treatment plan changed as the client was at low risk for a pulmonary embolism. Clinical judgement may have been different if an absolute number was reported verses a “greater then” value for the d-Dimer test. The patient deteriorated and was transferred to a tertiary care facility. A Pulmonary embolism was discovered and the patient was treated and recovered.

**Keywords:**

Delay in Treatment, pulmonary embolism, d-Dimer

**Device Name (if applicable):**

**Drug/Name/Fluid Name: (if applicable):**

**Type of Analysis:** single event

**Topic:** Specimen/Laboratory

**Findings of the Review:**

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Different quality control tests used for PT/INR, PTT and d-Dimer tests on the same machine coupled with more than one standard operating procedure for these tests in the same standard operating procedure instruction sheet, limited usage of the d-Dimer test and varying acceptable ranges for these tests increased the likelihood that the D-Dimer results was manually reported in a greater than (>) value instead of an absolute number which would have indicated whether a pulmonary emboli (PE) was present. This was compounded by multiple requests to draw blood and potential fatigue.

**System Learning:**

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Develop a plan for staff on how to respond to lab requests when the volume of tasks exceeds the resources available during after hours, weekends and holidays.

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