

Dedication

I dedicate my dissertation work to my great family. A special feeling of gratitude to my greatest and loving parents,

Dr; Elfatih Yousif Elamin and Mrs; Aisha Ali Reheiman

whosedraw all successful steps in my life. To my lovely brothers and sisters Mohammed, Sumia, Ahmed and Sarah have never left my side and have supported me all time.

Ask Allah to keep them to me forever.

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Abstract

This study subjective to deal with probabilistic inference of lung cancer diagnosis involving features that are not directly related, and for which the conditional probability cannot be readily computed using a simple application of the Bayes' theorem that illustrates a simple Bayesian Network example for exact probabilistic inference using Pearl's message-passing algorithm to model the diagnostic of lung cancer.

The model of diagnosis examined over 200 patients and the results were been satisfied.

المستخلص

تهدف هذه الدراسة للتشخيص المبكر لسرطان الرئة وتشمل في ذلك المميزات التالية: ترتبط بشكل مباشر والتي يكون الاحتمال لشرط يلحدونها لا يمكن حساب بسهولة. لذلك نحن نلتمس ذلك من خلال نموذج تشخيصي باستخدام تطبيق شبكة بايسينا لإستدلال آلية و خوارزمية تم رير لتشخيص سرطان الرئة.

تم اختبار هذا النموذج على ٢٠٠ مريض من مرض سرطان الرئة وكانت النتائج مرضية.