

**Sudan University of Science and Technology**

**College of Graduate Studies**

*Department of Haematology*

# **Measurement of the frequency of ABO and Rhesus Blood Group System Phenotypes in Al Fur Ethnic Group**

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# Dedication

To my

**Mother**

and

**Father**

## Acknowledgement

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## Abstract

The intent of this study is to determine the frequency of Rh and ABO blood groups among El-four tribe who live in Khartoum State. One hundred individuals (77males & 23 females) were investigated by the direct agglutination test and indirect antiglobulin test whenever the presence of  $D^u$  was suspected.

The results showed that antigens ***e*** and ***c*** was fully expressed (100%) while antigens ***E*** and ***C*** were poorly expressed. The most common Rh phenotypes were ***ccDee*** and ***CCdee*** while the phenotype ***CcDEe*** was the rarest.

The study concluded that the expression of all Rh antigens illustrates the resurgence of considering this blood group system in compatibility testing in blood transfusion practice. Therefore, it was recommended to apply Rh compatibility testing in all blood banks in Sudan

## ملخص الاطروحة

تهدف هذه الرساله الى ايجاد نسبة فصائل الدم عند قبيلة الفور الذين يسكنون فى الخرطوم وهذه الفصائل معبرا عنها بالشكل الظاهري وكذلك بعض المستضدات ABO ( وجهاز الـ Rh ) تتبع للجهاز الريصى وقد اجريت هذه الدارسة على مئة شخص بينهم 77 ذكور و 23 اناث حيث اخذت منهم . DU النادر ممثل : عينه دم وردي تم فحصها وكانت النتجمة CCDee وتمثل 90% بينما الطراز الظاهري الاقل شيوعا هو CCDee الطراز الظاهري الاكثر شيوعا هو : وتمثل 1% توزيع مستضدات العامل الريصى كالاتى D 96% C 100% e 100% E 5% وتوزيع مستضدات جهاز الـ AB0