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Blood Bank Management System

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A B S T R A C T

Blood exchange safety is a application and importantly public health issue in the sultanate of Oman. Since most blood bank are still in paper-based system, various disadvantages are experienced by various stakeholders, which risk the life of patients and deter the healthcare system. As such, the researchers aimed to design, develop, and implement an online blood bank management system (OBBMS). Blood bank can ask to another blood bank for unobtainable blood. People ready to donate blood can discover out closest blood banks using Blood Bank Management Android Application can be retrieve only by the donors to seek the blood donation centers and the requesting blood banks and hospitals and clinic to search the nearest blood banks and donors.

Keywords: Blood Donors, Customer, Registration.

1. INTRODUCTION

The population of the world is growing with each coming year and so are the infection, diseases and health problems. With an increase in the population there is an increase in the require of blood. The growing population of the world outcomes in a much of potential blood donors. But in spite of this not more than 10% of the total world population members in blood donation. With the growing population and the development in medical science the demand for blood has also rise. Due to lot of communication between the blood donors and the blood receiver, most of the patients in require of blood do not acquire blood on time and hence lose their lives. There is a urgent need of synchronization between the blood donors and hospitals, clinic and the blood banks. Blood Bank Management system (BBMS) is a web based system that can serve the details of blood container during its handling in the blood bank. With this system, the users of this system can key in the result of blood test that has been manage to each of the blood container received by the blood bank. The result of test will show whether the blood container can be delivered to patient or not.

2. LITERATURE SURVEY

1]. Study entitled "A Study on Blood bank Management System ", they defined Blood Bank Information System as an information management system of donor data and blood bank .

Published by Teena , C.A, Sankar , K. and Kannan, S. in 2014

Blood bank Information system will. be an information management system which helps to manage the details of donors and patients at a bold patients at a blood bank . The system will allow the sanction blood bank officer to login using a confidential password and simply manage the detail of the blood donor and the patients in need of blood. The key characteristics of the system will be the following : centralized database architecture. Access to the system secured by login . Search facility for finding blood donors based on various to finds standards search facility for finding patients(acceptors) based of various search criteria . Easy addition and updating of donor's details . Easy addition and updating of details of acceptors.[1]

2]. Study entitled the researched developed a web based blood management which assists the blood donor records management, and provides ease of control in the distribution of blood products in various parts of country considering request of hospitals

Published by Kumar,R., Singh, S and Ragavi , V.A. in 2017

Based on this study , since entering the details about the blood donors and related details were done manually . thus, tracking of blood donation activities was difficult and complicated and even led to wrong information. Subsequently , the researchers mentioned thar manual based system can be waste of time, lead to the error prone results , consumes a lot of manpower , lacks data security , data retrieval requires a lot of time , reports consumes a long time to produce, and there is less precise accuracy on the results.[4]

3. MODULES

1. Reception

This module simplify the day-to-day operations of the front office management of your Blood Bank. It helps the operator in assisting patient with accurate information and efficiency handles all patient enquiries related to the blood. With advanced search utilities and excellent features, it improves the quality of services facilitated to the user. This module manages:-

Appointment Schedular

Patient Registration

Generate Patient ID Card

Demographic Details

Charge Detail

Billing & Payment

Blood Donor Registration

Search Blood Bag details.

2. Blood Bank Management

This module is a full of solution for blood bank, maintaining all details regarding the blood donation. This module is well linked with other modules and so is well known to blood bank and can keep the bag ready for the distribution. This module manages:-

Registration of Blood Donors.

Receiving Blood or Donation.

Setting up the blood bag number and expiry date.

Instant search of required blood group and issue to patient.

3. Security & Administration

This modules deals with security by managing/controlling the access to various modules and sub-modules available in the software. It also deals with the other secured variable like importing database, Blood Bank information. This module includes:-

Provision to Create / manage users.

Import database advantage, very helpful in case of live records.

Provision to create / manage roles and assigning privileges and permission of information to the corresponding role.

4. Billing

This modules tracks all services that patient has gone through and changes been raised and generates an automated billing as per those services. Other service changes can also be raised as per Blood Bank average and can be included in the final bill. This modules includes:-
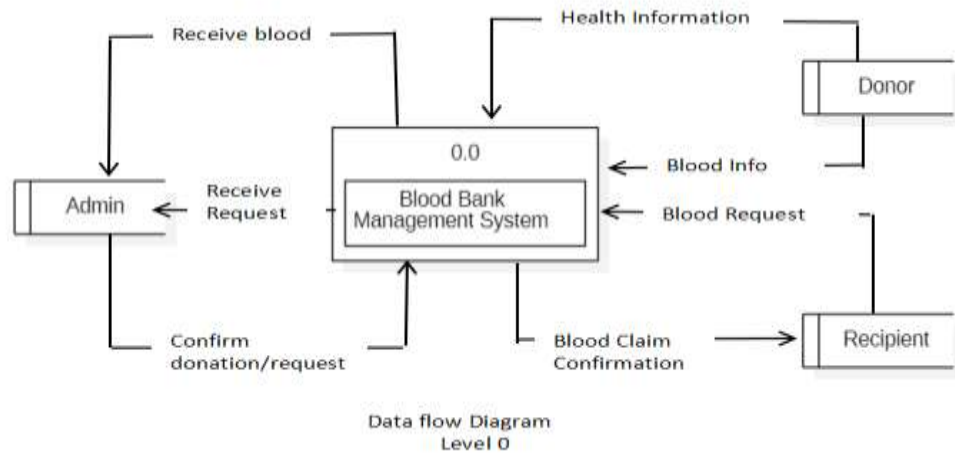
Supply to add service charges of Blood Bank.

Tax master that may be needed to include in billing.

Advance collection utility.

Authorize billing and immediate information of collection of cash.

DATA FLOW DIAGRAM :

Data flow Diagram
Level 0

Conclusion :

Advancement in technology is a prime reason that most of the facilities are available easily and quickly in generally all the sectors of life . Similarly , our Purposed system is a measure advancement in the management of blood which is purpose to increase efficiency in the collecting and processing blood . Automating the process of blood management provides a better and quick response in emergency case .

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