estatística (média aritmética), sendo 1% do número total de processamentos mensais, do ano de 2021 de CH, CHD e CHPL, que de acordo com o cálculo totalizou 36 bolsas, sendo divididos em três grupos, cada um com 12 unidades, alcançando o necessário para a aprovação do processo de validação, com >75% de conformidade. As metas de conformidade por parâmetro estabelecidas seguiram a RDC N°34/2014, quais sejam: teor de hemoglobina >75%, dosagem de hematócrito >75%, grau de hemólise >75%, leucócitos residuais >90% e microbiológico =100% negativo, para cada tipo de bolsa processada. Os resultados das análises foram tabulados e registrados em um relatório final em conjunto com os participantes do processo. **Resultados:** As 12 bolsas de CH apresentaram conformidade, para o parâmetro de hemoglobina, grau de hemólise e microbiológico, para o parâmetro de hematócrito: 2 bolsas foram não conformes, finalizando a aprovação da validação em 83,30%. As 12 bolsas de CHD, apresentaram conformidade para todas as bolsas em todos os parâmetros, obtendo 100% de aprovação. Das 12 bolsas de CHPL, apenas uma apresentou não conformidade no parâmetro de leucócitos, fechando com 91,30% de aprovação a validação. Todos os parâmetros foram analisados e tabulados no programa Excel. **Discussão:** Das 36 bolsas, 3 apresentaram não conformidade nos parâmetros analisados e suas possíveis causas foram tempo e/ou velocidade de centrifugação, retirada de plasma em sangue total após o processamento, falhas na homogeneização e/ou coleta da amostra para o controle de qualidade, o que tornam os resultados positivos e acima da média mínima exigida em legislação. **Conclusão:** Os resultados obtidos no processo de validação revelaram dados, por análise percentual de conformidades, nos quais a seguridade e a qualidade na produção dos hemocomponentes citados foram alcançadas. Portanto, as evidências produzidas garantem a qualidade dos hemocomponentes citados neste trabalho, ofertados e distribuídos para as Unidades requisitantes junto ao MT-HEMOCENTRO e, consequentemente na soma dos esforços para o alcance da segurança transfusional junto aos pacientes.

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USAGE OF RADIO FREQUENCY IDENTIFICATION IN BLOOD BAGS IN HEMOTHERAPY SERVICES: A SYSTEMATIC REVIEW

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Introduction: Hemotherapy services represent a considerable investment and are critical to national health systems because they provide the basis for the collection, processing, and distribution of blood. They must have full control and traceability over the blood collected and subsequently transfused. Radio frequency identification (RFID) has been highlighted as a potential application for monitoring the distribution of blood bags in blood banks. Therefore, the aim of this study was to evaluate the usage of RFID of blood bags in hemotherapy services. **Materials and methods:** Applying the guideline of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), inclusion and exclusion criteria were outlined. Only studies in article format, available in full, written in English, Portuguese or Spanish, and published between 2012 and 2021 in peer-reviewed journals were included. Articles that did not strictly address the topic of the use of RFID technology in blood banks were excluded, and repeated articles as well. To gather information regarding the application of RFID in blood banks, a survey was conducted with Capes Periodicals, a Brazilian research tool that accesses all principal databases. An advanced search using the keywords “RFID”and “Blood Bank”in the “search by subject”field was conducted, initially identifying 97 studies. After selecting only articles, 84 results were obtained. Subsequently, the 2012–2021 time frame was included as a search criterion, narrowing results to 42 articles, which were reduced to 36 articles after applying a filter for peer-reviewed journals. Among the 36 articles, only 24 were available in full. The papers were subsequently read to identify relevant characteristics, benefits, and implications of the various applications of RFID to blood bags and blood banks. After screening to eliminate articles outside the scope of the research, the final sample was composed of 13 studies that allowed the compilation of results. **Results & discussion:** Application of RFID technology to blood bags is already being studied, with a focus on optimizing the handling and generation of data that allow the traceability of bags. The blood cycle must ensure the availability of products at the right time, the minimization of waste in stock, the optimization of patient care and reduce errors in product handling. Further, the Internet of Things allows the connection of identifiers, sensors, devices, and computers through wireless networks whose impact can reduce manual work, time spent, operating costs, and the frequency of failures. The network standard for the use of RFID must be accompanied by a standard for the identification of blood bags at an international level, such as ISBT 128. RFID has advantages such as high data storage capacity and the low risk of damage to RFID tags compared with barcode tags. There are several factors restricting the use of RFID, such as the cost of the tag, the lack of hardware and software standardization across blood banks, etc. **Conclusions:** The studies in this review reveal that the use of RFID of blood bags is a compelling technological innovation to ensure the traceability of blood bags in blood banks and hospital units, provides gains in productivity and efficiency. In summary, this study outlines the advantages of and barriers to the implementation of through RFID technology—an internet of things strategy - in hemotherapy services.

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