Integration between haemodialysis machines from different manufacturers and an electronic medical record through a SNOMED CT value set

Introduction

Methods

Results

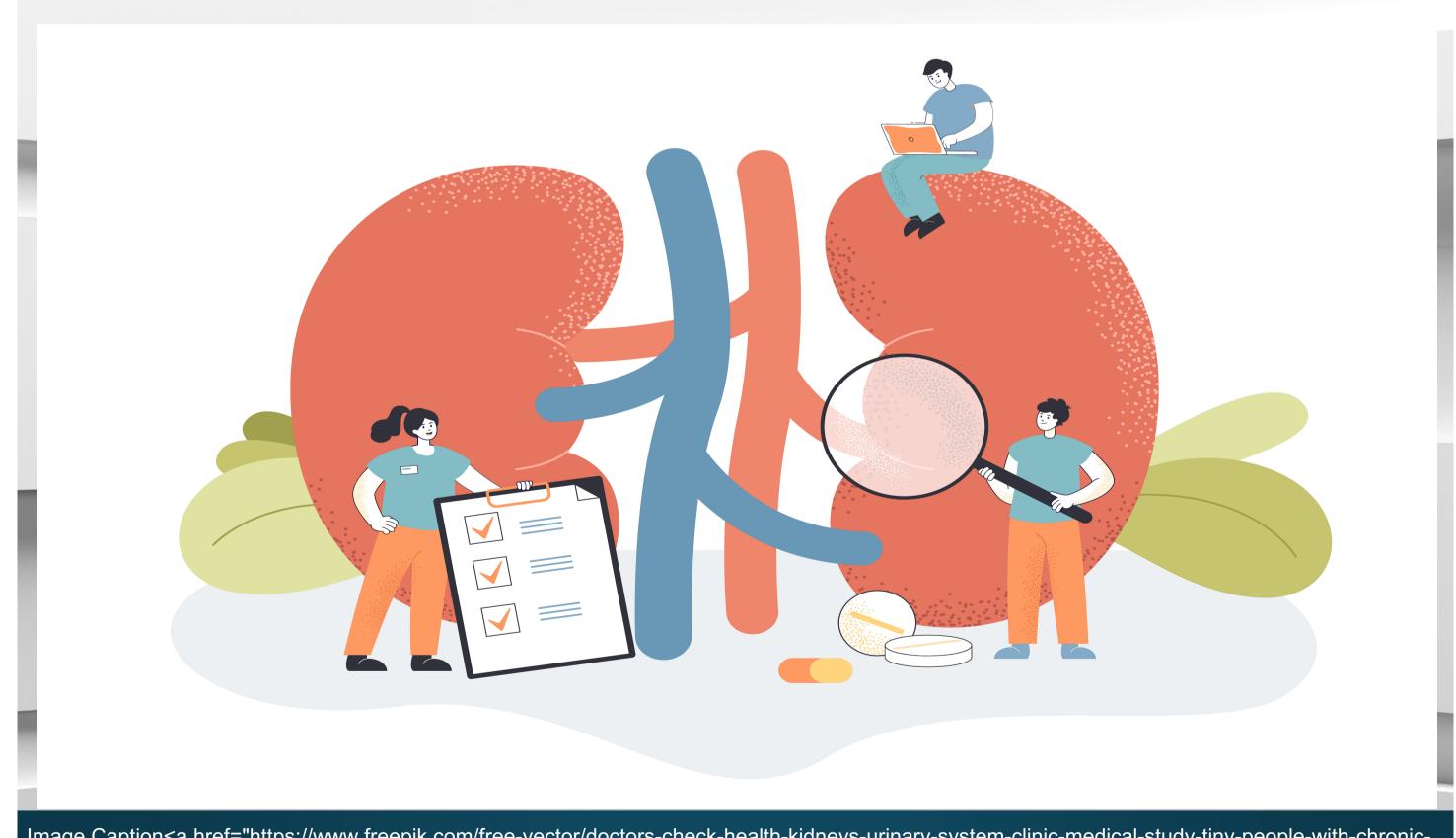
Discussion

Abstract

In Castilla y León, a region of Spain, the Gerencia Regional de Salud within a strategic framework of development of Health Informatics and Health Information and Communication Technologies, requested the support of the European Regional Development Fund 2014-2020 operational program, to implement an electronic health record tool for nephrologic patients. Having a corporate tool supports the healthcare of nephrologic patients and initiates an interoperability challenge within the organization between tools for recording the electronic health record. An internal circuit is established to analyze new concepts necessary for correct interoperability within the organization. These circuits end with the creation of these new concepts in the Spanish extension by SNOMED CT in the National Reference Centre and the implementation in our systems. Usefulness of SNOMED CT for effective semantic interoperability is clear to maintain this strategic line of action on future.

Topic

- To be able to interoperate between applications with a common language.
- Implementers: Health information managers and health informatics











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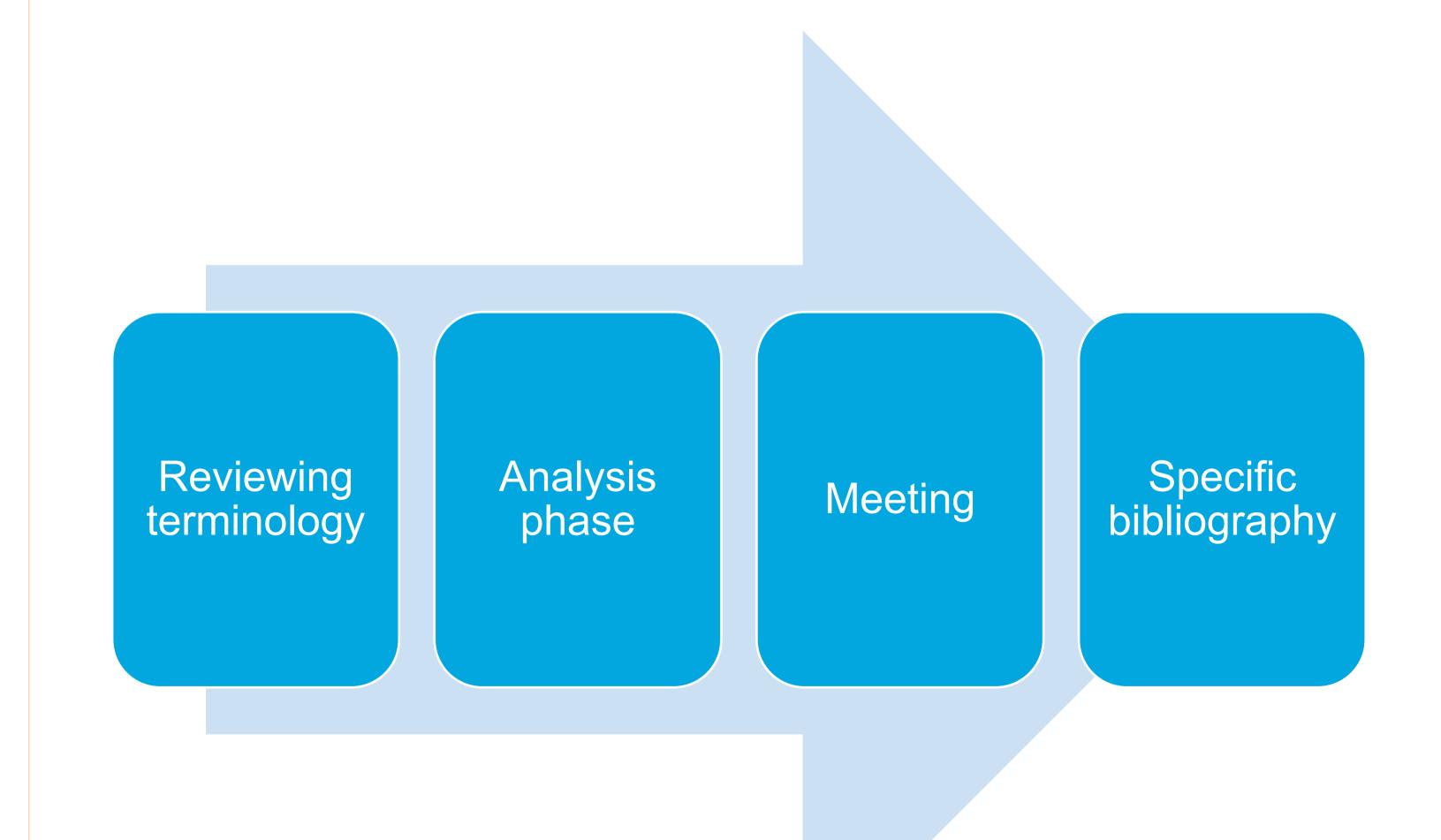
Discussion

Research Design and Methods

After reviewing different terminology standards for a correct electronic exchange of clinical data, it becomes clear that there is no minimum set of concepts that describe all or most of the data shared by the different dialysis machines. At the same time, terms and codes that are already in use in our Health Service, and which are described in our Integration Guidelines, are identified. Concepts identified in the initial phase that are not active in current SNOMED CT Spain edition are requested to the SNOMED CT National Reference Centre in Spain. Previously, an analysis phase is carried out to identify the most appropriate concepts and the information that reflects each piece of data sent by the machines. At the same time, several meetings were held with the managers of the company awarded the recording registration tool. Likewise, specific bibliography and various documentation is reviewed to define the concepts precisely.

Content

To implement work circuits for the search for new concepts.









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The terminology team understood that the SNOMED CT terminology is better adapted to the interoperability that the Castilla y León Health Service and the Spanish Ministry of Health have opted for.

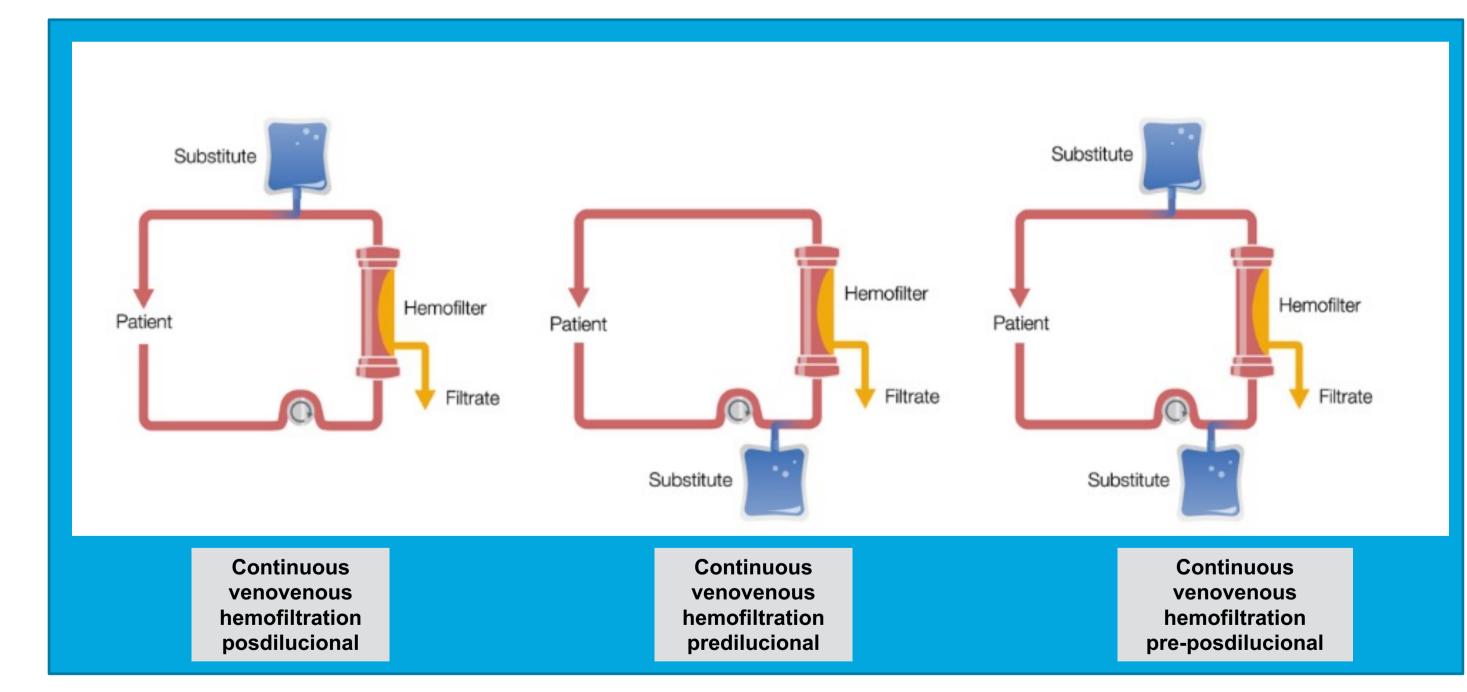


Image caption: Chile, F. M. C. (2020). Configuraciones de la CRRT. Retrieved from https://www.freseniusmedicalcare.cl/es-cl/profesionales-de-la-salud/terapias-agudas/configuraciones-de-la-crrt



Results

Topic

- Demonstration of implementation excellence
- Improve clinical practice and outcomes

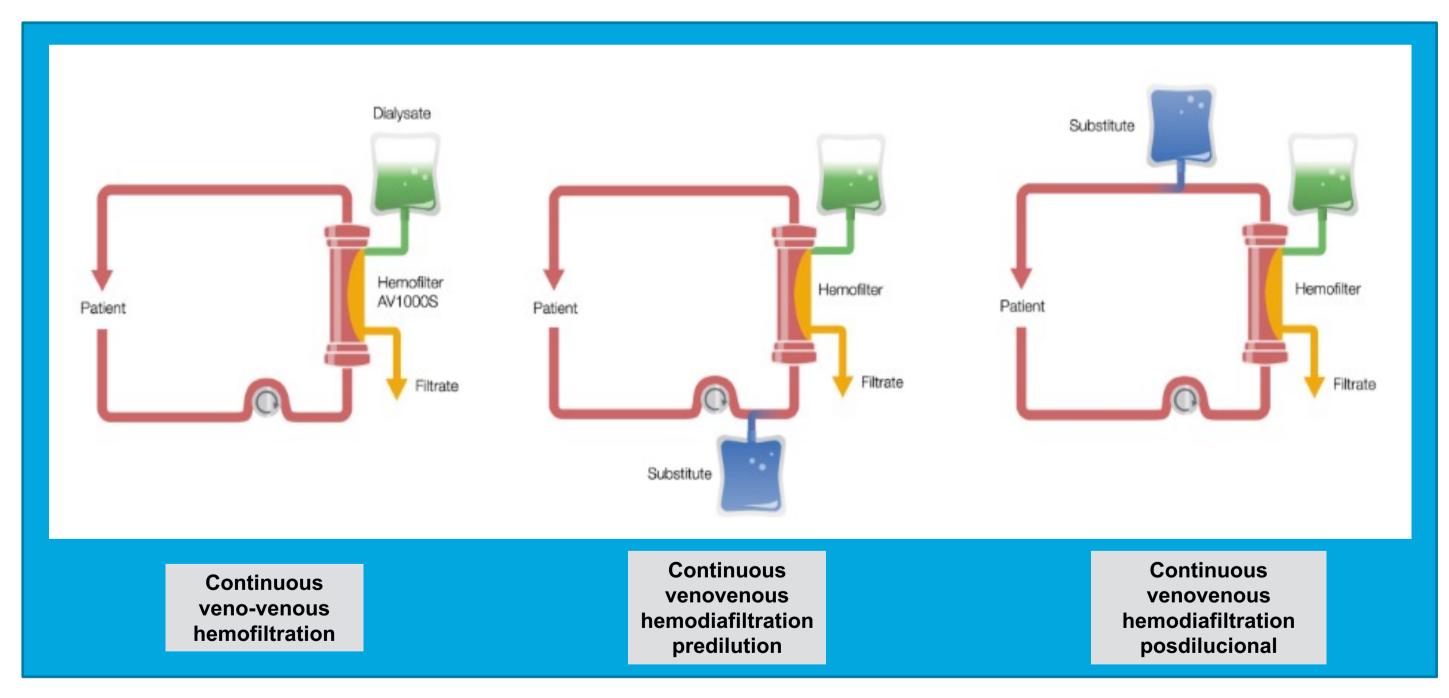


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Topic

 Identify areas for improvement within the organization in the face of new challenges

Conclusions

SNOMED CT is a versatile and constantly updated terminology that allows grow in an orderly, interoperable and hierarchical manner. These characteristics provide a model to normalize and support the interoperability for future incorporations of dialysis machines or new techniques, in a constant advance in health care.

Future Directions

- Define new functionalities for the professionals in charge of interoperability tasks within the organization.
- Disseminate the knowledge acquired in its different versions.

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