

IMPLEMENTATION AND BENEFITS OF A QUALITY MANAGEMENT SYSTEM IN A HAEMODIALYSIS UNIT

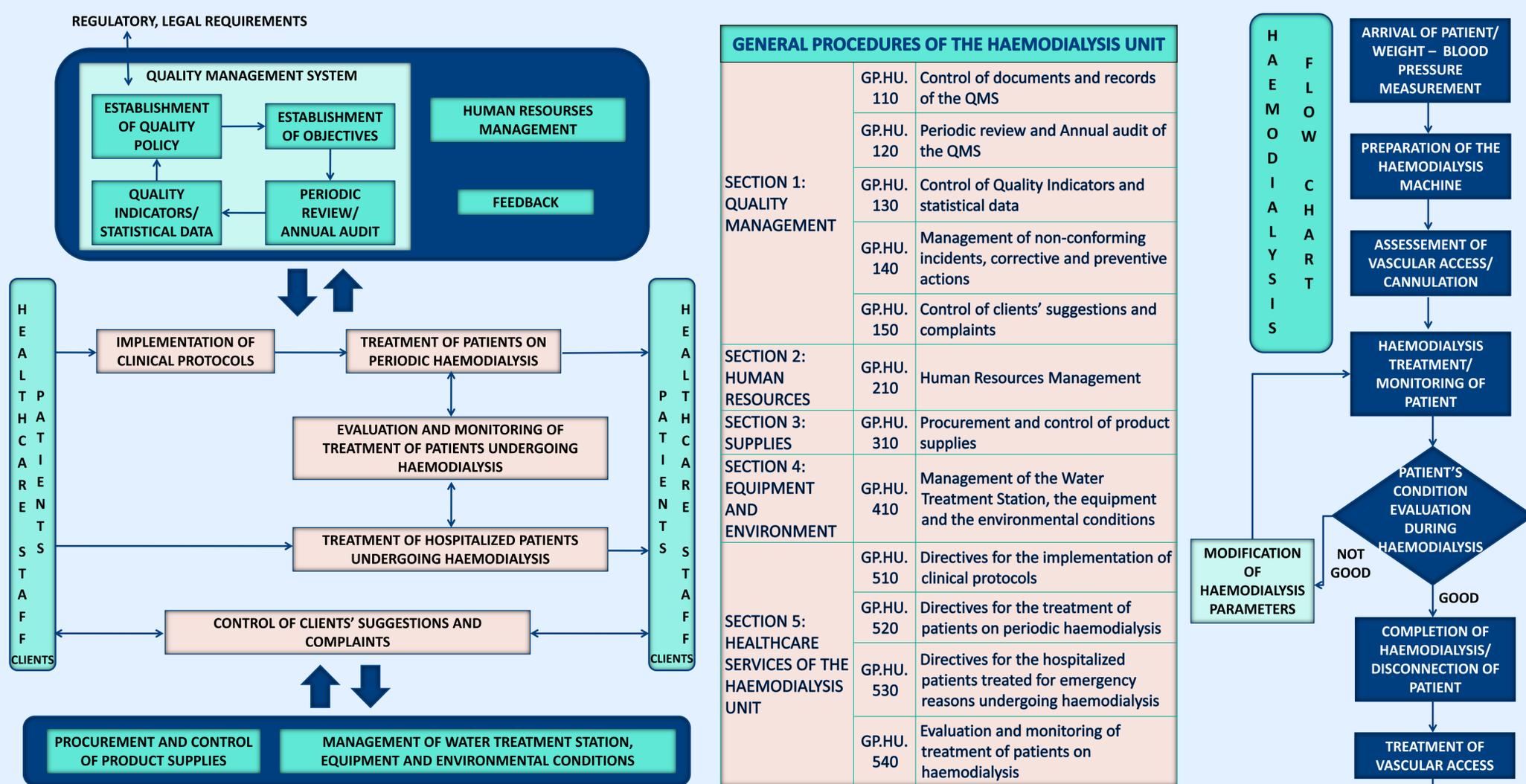
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INTRODUCTION Haemodialysis Units aim at providing to the patients undergoing chronic haemodialysis appropriate healthcare adapted to their individual needs. The latest developments in the field of nephrology and haemodialysis treatment point out the importance of quality services that meet high standards of healthcare and safety. In order to achieve such quality standards more and more haemodialysis units adopt a Quality Management System which can be successfully applied to renal care. A Quality Management System (QMS) is a system of documents, procedures and processes which help an organization coordinate and control its activities in terms of efficiency and quality. It allows the organization to meet not only the regulatory and legal requirements of its field, but also its customers' expectations concerning the care provided. Therefore, the implementation of a QMS in a Haemodialysis Unit is a strategic decision to promote effectiveness, reliability and safety which is a prime concern in renal care.

AIM The description of the implementation and benefits of the ELOT EN ISO 9001:2015 Quality Management System, for the "Provision of Dialysis Services in Patients with Renal Failure", in a Haemodialysis Unit of a public hospital in Athens, Greece.

MATERIAL AND METHOD ISO 9001:2015 is an international standard which specifies the principles of Quality Management Systems, with a strong focus on continuous improvement. The implementation of the QMS in the Haemodialysis Unit was achieved by the collaboration of an external consultant and a multiprofessional team of the hospital staff. The first step was a situational diagnosis of the current procedures and the appointment of the Headnurse of the unit as the Quality Manager responsible for the QMS. The QMS required the creation of a Quality Manual which specified directives for all services of the Haemodialysis Unit. All processes were regulated in general procedures, while a flow chart demonstrated their relations to one another. The haemodialysis process followed specific flow charts which covered the treatment of patients on periodic haemodialysis and the treatment of patients hospitalized due to emergency reasons.



The successful implementation of the QMS is ascertained by the achievement of specific Objectives that have been established according to the Quality Policy. These Objectives are in accordance to the official best practices in the field of renal care and can be measured by specific Quality Indicators. The Quality Indicators used reflect all aspects of the healthcare provided, they are evidence-based and are measured objectively, by a specifically set time table. They can be grouped in 11 general categories. The Haemodialysis Unit is subject to periodic reviews whenever it is deemed necessary and to an Annual Audit by an external inspector to ensure the continuous compliance with the quality requirements.



RESULTS The implementation of the Quality Management System at first seemed irrelevant to the healthcare services and seemingly increased the workload of the personnel. However, it soon became clear that the QMS led to the improvement of procedures and practices in the Haemodialysis Unit, as it allowed for the identification of the areas which comprised the positive aspects of the Haemodialysis Unit and the areas that required further improvement. One such example was the realization of the need for a preventive maintenance program of the medical equipment, which was subsequently established by certified outsourcing companies. Moreover, the QMS emphasized the compliance with the regulatory and legal requirements in the field of renal care. It enabled a more consistent and effective monitoring of processes, a reduction of deviations and unnecessary work repetition, while it established immediate corrective and preventive actions for any non-conforming incidents. The QMS led to a reduction of risk through a more accurate risk management policy regarding all aspects of the Haemodialysis Unit. Better clinical results were achieved by the systematic follow-up of the medical treatment of the patients undergoing haemodialysis and the establishment of clinical protocols. The implementation of the QMS increased the personnel's motivation and promoted teamwork. Furthermore, the establishment of the quality policy allowed for better control of the Haemodialysis Unit budget and as a result for lower cost. Therefore, the Quality Management System increased the reliability of the healthcare services of the Haemodialysis Unit.

CONCLUSIONS The ISO 9001:2015 standard does not specify how to conduct a procedure, it defines however, a minimum of general requirements in order to establish a quality system. The implementation of a Quality Management System that is compliant with the ISO 9001 standard uses the methodology of the Plan-Do-Check-Act (PDCA) cycle which, when followed and repeated, will lead to repeated improvements in the process it is applied to. The implementation of the Quality Management System in a Haemodialysis Unit in accordance to renal care requirements improves all aspects of the renal care provided, reduces operational costs and adds value of reliability, safety and efficiency. It leads to a cultural transformation which emphasizes the importance of the continuous improvement of the healthcare personnel and as a result further enhances the patients' trust. Lastly, the QMS gives the Haemodialysis Unit the ability to document and prove the quality of the services provided through evidence based Quality Indicators.

