

DIGITAL TRANSFORMATION: USE OF THE QR CODE IN THE INTERNAL CENTER OF HOSPITAL REGULATION (NIR)

Nilra do Amaral Mendes Silva¹, Valquiria Miranda Vargas², Flávia Silva de Souza³, Evelyn Amorim Correa⁴ and Ana Carolina Sanches Zeferino⁵

ABSTRACT

The Internal Regulation Center (NIR) of a public hospital, located in the interior of Rio de Janeiro, faced significant challenges in the process of receiving documents to request tests and procedures. Clinical sectors, such as emergency and outpatient clinics, often forwarded incomplete or illegible documents, requiring multiple trips to and from the NIR to settle pending issues. In addition, the NIR team only identified the missing documents during insertion in the system, generating rework, wear and tear on the team itself and delays in the regulation processes. This study implemented a digital solution via QR Code to centralize and standardize access to the documentation list through the PDCA methodology. In the Planning (*Plan*) phase, an analysis of the workflow was carried out, which identified the absence of Standard Operating Procedures (SOP) and training, as well as inefficient listing of documents. In the Execution (*Do*) stage, respectively, SOPs and a new list of documentation for requesting exams were prepared, categorized by specialty; storage of items in the cloud and training. Subsequently, QR codes were generated, printed, and distributed in the participating sectors. In Check, after 3 weeks of implementation, an evaluation was carried out on the 19 employees of the sectors involved. The results showed that 89.5% considered that the QR Code improved access to the document listing; 94.7% perceived the process to be more controlled and organized; 73.7% reported a reduction in the time it takes to find the list; and 52.6% started to use the QR Code exclusively. In the Act phase, NIR *feedback* highlighted operational improvement "*Our work was perfect*", but pointed to the need for greater adoption by the sectors.

The results of the QR Code implementation proved the reduction of rework, increased efficiency, and improved employee satisfaction. The strategy proved to be replicable for other units, evidencing the effectiveness between digital transformation and continuous improvement in the optimization of hospital processes.

Keywords: NIR. Qr Code. Digital Transformation. Continuous Improvement. PDCA Cycle.

¹Fluminense Federal University (UFF) – Rio de Janeiro

²Estácio de Sá University Porphirio Nunes de Azeredo Municipal Hospital – Rio de Janeiro

³Fluminense Federal University (UFF) – Rio de Janeiro

⁴Universe – Rio de Janeiro

⁵Fluminense Federal University (UFF) – Rio de Janeiro