6th International Conference on

## **Medical Informatics & Telemedicine**

July 05-06, 2018 | Berlin, Germany

## THE IMPORTANCE OF APPLIED INTELLIGENCE ANALYSIS IN DIAGNOSTIC IMAGING PRELIMINARY ANALYSIS IN A DIAGNOSTIC IMAGING DEPARTMENT OF A PUBLIC HOSPITAL IN KUWAIT

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Statement of the Problem: Diagnostic imaging has grown faster over the years, with more technologies being introduced providing diverse imaging options for physicians. However, that is not necessary good in some cases as diagnostic imaging procedures can be miss used. According to choose wisely (2014) reasons for this include, malpractice, wanting to be safe or reassurance for physicians and patients, or simply testing new technologies. Eventually, this causes hospital overcrowding, delay in appointments and proper health care, and increase hospital coasts. One way to avoid miss use is to monitor and keep records of departmental practice. The Purpose of this work is to present how a computer tool implementation (applied intelligence, GE, Kuwait) in the electronic clinical format of a diagnostic imaging department. The computer tool is used to analyse information and clinical data within the diagnostic imaging department. The information targets the frequent use of diagnostic imaging procedures in the hospital results obtained in the first months after the tool's implantation in 2018.

**Methodology & Theoretical Orientation:** In January 2018, the computer tool was established in the electronic history of the diagnostic imaging department of a public hospital in Kuwait. It was coded to record all radiological requests that arrives to the department, the tool then generates comparisons and data alerts.

**Findings:** In these 120 days there have been 28532 alerts for requested radiological tests, most of which were for general and mobile X-rays 75%, secondly was ultrasonography (US)11%, third highest was for Computed Tomography (CT) 8%, remaining included Magnetic resonance imaging (MRI), bone scans, mammography, and orthopedic theater imaging. The highest imaging procedure requested in the hospital was chest X-rays performed by the medical and surgical department outpatient.

**Conclusion & Significance:** X-rays and the traumatology service are the scenes of the greatest number of requested procedures. Patients and doctors do not follow through with appointments causing delays in future appointments. This tool is a useful way of keeping track of department activity to avoid unnecessary repetitions or miss use of X-ray procedures.

## **Biography**

Muna E. AlMulla did her PhD from Kuwait university, She is also a MR-specialist employed at the ministry of health -Al-Sabah hospital since August 2007-2018, she is also a clinical instructor Kuwait university since January 2018. She did her BSc. in Diagnostic Imaging from Kuwait University in 2007 after that she completed her MSc. in Magnetic Resonance Imaging from the University College Dublin, Ireland in 2011. She completed her PhD in Magnetic Resonance Imaging from the university college Dublin, Ireland in 2014. Currently she is the member of the Technologists Research Committee in Al-Sabah hospital since 2015.

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