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THE IMPACT OF RECORDING SENTINEL EVENTS ON THE APPLICATION OF QUALITY STANDARDS IN MEDICAL LABORATORIES

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Abstract: *The aim of the study is to know what serious events are and their relationship to the application of quality in medical laboratories, the extent of the importance of applying the registration of serious events in medical laboratories, what is the importance of having a special record of serious events in medical laboratories and its relationship to the implementation of quality. the questionnaire was created through the Google Drive application, where this questionnaire was distributed to social networking groups WhatsApp, where 800 answers were obtained from those (health practitioners of the city of Mecca), out of a total of 700 questionnaires.*
Keywords: *impact, recording sentinel events, the application of quality standards, medical laboratories*

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INTRODUCTION:

Most of the many various terms used in the literature to know errors in laboratory medicine (e.g., mistakes, blunders, defects, outliers, unacceptable results and quality failure) have negative connotations of blame, individual failure and culpability and, even worse, pertain to studies focusing on a limited number of total testing process (TTP) steps. A key step toward initiatives aiming to minimize mistakes and improve patient safety in the discipline will be made once consensus has been realize on a comprehensive introduction of errors in the laboratory testing. Errors in laboratory medicine are intrinsically mysterious as they are tricky to identify and, when found, are less easily understood than other types of medical error. Compared with adverse events link to surgery or other treatment errors that are often glaring and obvious, laboratory errors face to be more insidious and harder to pinpoint in time and place. The difficulties rely largely on there being several steps involved. Firstly, there is a time lapse between laboratory testing, physicians' action and patient result. Potential failures in the process steps nearest to patient intervention are, in fact, more likely to result in patient wound or harm. Failures that come earlier on in the process are more likely to result in process disarray but 'active and passive' defensive barriers – which depend on technology, people, procedures and administrative controls – may populate their potential hurt or may block the recognition of their impact on the final adverse event. Secondly, the testing process is compound, contain of numerous steps and stretches across multiple providers. Moreover, only the analytical phase falls under laboratory control, while the pre- and post-analytic phases pertain to different stakeholders other than the laboratory such as the doctor the nurse, the patient and others involved in patient identification, data entry, sample collection and transport. The different terms used as synonyms in the literature on laboratory errors are the fruit of different study designs that have almost exclusively permit the evaluation of analytical errors (e.g., outliers, unacceptable results) or, as in the case of the split-specimen design, are insensitive to many steps in the testing process, particularly those at the beginning and/or at the end of the cycle. One recent and interesting proposal made is to use a neutral term such as 'quality failure', which mitigates the minus connotations associated with previously reported terms, and the related fear of culpability and blame. This term means 'any failure to meet the required output quality necessary for optimum patient care anywhere in the pathway from test selection to the return of an appropriately interpreted report to requesting clinician'[(1)] This definition has a clear focus on patient care and patient outcomes rather than on processes and procedures. However, the term 'error' is used in the medical literature, and should therefore be employed also for errors in laboratory medicine, particularly as they are part of the broader issue of diagnostic errors.[(2)] The Technical Specification released by the International Organization for Standardization (ISO/TS 22367) defines laboratory error as failure of planned action to be completed as intended, or use a wrong plan to achieve an aim, occurring at any part of the laboratory cycle, from ordering examinations to reporting results and appropriately interpreting and reacting to them[(3)] . Laboratory medicine, as a specialty that had prioritized quality control, has always been at the forefront of error reduction. In terms of quality control and error rates, laboratory medicine has a far better record than most other fields in health care. As part of the developmental steps to improve health services in the private sector, the Ministry of Health required all private hospitals to register in the Serious Errors Program, as one of the requirements for licensing hospitals, renewing them, or continuing service. In a circular issued by His Excellency the Deputy Minister of Health for Planning and Development, Dr. Muhammad bin Hamza Khushaim, the Ministry stressed to all health affairs directorates in the regions and governorates the necessity of quickly urging all private sector hospitals to register all serious events in the new program that the Ministry introduced

(serious medical events). The circular also included a warning. These hospitals must receive the password and password and ensure that they record any serious error that occurs within 48 hours.This measure comes within the framework of the efforts made by the Ministry of Health to improve and improve the health services provided to patients, and based on its effective role in preserving their health and safety, identifying the causes of accidents, and developing preventive means. To prevent its recurrence. It is noteworthy that the system for monitoring and monitoring serious errors (sentinel events) is an electronic system in which the event is recorded on the screen directly from the hospital, and appears to officials in the ministry for reference to the hospital. To find out what went wrong and the serious mistakes, as is known, such as transfusing the wrong blood or performing a surgical operation in the wrong place or for the wrong patient, and other serious mistakes. [(4)]

2-MATERIAL AND METHODS:

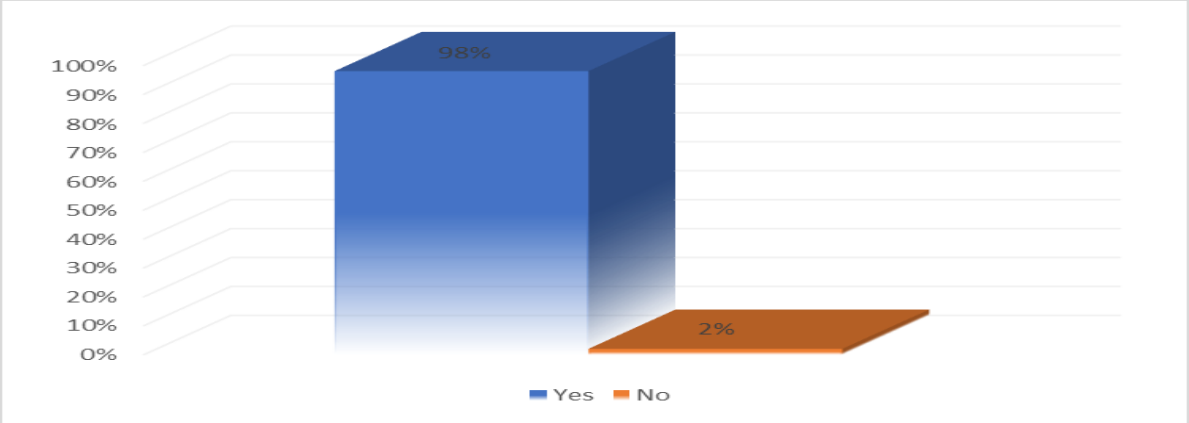
The study started in (the holy city of Mecca in Saudi Arabia), began writing the research and then recording the questionnaire in June 2023, and the study ended with data collection in October 2023. The researcher used the descriptive analytical approach that uses a quantitative or qualitative description of the social phenomenon (The impact of recording sentinel events on the application of quality standards in medical laboratories). This kind of study is characterized by analysis, reason, objectivity, and reality, as it is concerned with individuals and societies, as it studies the variables and their effects on the health of the individual, society, and consumer, the spread of diseases and their relationship to demographic variables such as age, gender, nationality, and marital status. Status, occupation [(5)], And use the Excel 2010 Office suite histogram to arrange the results using: Frequency tables Percentages [(6)]. A questionnaire is a remarkable and helpful tool for collecting a huge amount of data, however, researchers were not able to personally interview participants on the online survey, due to social distancing regulations at the time to prevent infection between participants and researchers and vice versa (not coronavirus participation completely disappearing from society). He only answered the questionnaire electronically, because the questionnaire consisted of thirteen questions, all of which were closed. The online approach has also been used to generate valid samples in similar studies in Saudi Arabia and elsewhere [(7)]

3- RESULTS:

Regarding the ages of the participants in the responses to the research questionnaire, their ages were as follows: 25-34 years 8%, 35-44 years 42%, 45-54 years 38%, 55-60 years 12%. As for the gender of the same participants, they were 48% of women. And 52% were male. As for the gender of the participants, 98% were Saudis and 2% were non-Saudis. As for men's professions, 81.8% were technicians (doctors, nurses, laboratory, radiology, etc.), 18.2% were administrators (not related to technical matters). As for women's professions 10.7% were female administrators (they had no experience in technical matters... laboratory) and 89.3% were female technicians (female doctors and the rest of the other technical categories). As for the educational aspect for men, it was as follows: primary 0%, intermediate 0%, secondary 22.5%, diploma 32.3%. Master's degree 45.2%, doctoral degree 16.1%. As for the educational status of women, it was as follows: primary 0%, intermediate 0%, secondary school 3.6%, diploma 32.1%, master's 45.2%, doctorate degree 16.1%.Regarding the first question: Do you have a written and approved plan for recording critical incidents in medical laboratories? The answers were yes, 85.7%. As for the second question: Do you record all serious events that occur in the medical laboratory? Yes 86%, No 14%. As for the third question, it was about: Do you know what serious incidents in the medical laboratory mean? Yes 92%, No 8%.The fourth question: Have you ever recorded any serious event that occurred in the medical laboratory? The answers were yes, 46%, 54%. The fifth question: Have you ever accidentally pricked yourself with a needle while collecting a sample in a medical laboratory? Yes 40%, 60%. The sixth question was about whether the case was recorded in the serious events register in the medical laboratory. The answers were yes 52.1%, no 47.9%. The seventh question: What is the procedure followed in the event of any serious event occurring in the medical laboratory? The answers were mostly: notification by filling out the form, OVR, signature of the safety employee, informing the administration, informing the supervisor, taking a sample from the patient and examining it and informing infection control, communicating with infection control, registering in the serious events file and informing the relevant department about it, taking preventive measures and recording the case, in writing. OVR model. The eighth question: Is there a mechanism for registering any serious event case by the Ministry of Health? The answer was 100% yes. The ninth

question: Is there a correlation between serious events and quality standards in medical laboratories? The answers were yes 98%, no 2%. The last question was: Has the laboratory in which you work met quality standards? The answer was yes 92%, no 8%.(No.1)

Figure No.1: Opinions of health practitioners about the relationship of serious events to quality standards in medical laboratories



4-DISCUSSION:

We conclude from this study that full knowledge by health practitioners of what a serious event is and what is required of them if it occurs in a medical laboratory, and that a serious event has a very close connection to the quality standards of the medical laboratory at a rate of 98%.

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