Implementation of an Online Histopathology Reporting System in the Department of Pathology, Faculty of Medicine, University of Kelaniya

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The Department of Pathology, Faculty of Medicine, University of Kelaniya provides histopathology reporting for the Colombo North Teaching Hospital (NCTH) as an honorable service. The department currently uses a standalone Microsoft access database to generate reports and it has limited data retrieval capabilities. A newer system was required to address the issues faced, mainly a prolonged turnaround time caused by lack of clinical data, inability to track delays in sample processing, delays in data entry and report dispatch. More efficient data retrieval for research purposes and monitoring of postgraduate training were also considered important. The aim of the work was to implement anonline histopathology reporting system that has facility to track the reporting stage, postgraduate evaluation and data retrieval for researches. Every report is attached with a diagnostic code that can be used in research purposes. A web-based application was developed that has ability to capture data at each step from specimen receiving from the surgery theatre until dispatch of reports. The system has developed to easily customizable to different settings. Thus, it has facility to add new reporting templates, anatomical sites, surgical specimens or diagnostic codes to system through web forms. Data entry was facilitated by using drop down menus and prompts. Standard templates for reports with option to edit were uploaded enabling quick report generation. It facilitates postgraduate supervision by enabling the trainer to determine the time taken, quality and quantity of work done by the trainees. Mainly open source scripting languages and databases were used to developed the system: PHP, HTML 5, CSS Javascript, Ajax and MySQL. The system hosted on the faculty intranet and available 24/7 from anywhere at the faculty. The system supports both windows and androids operating systems and the system can be accessed in desktop and tablet computers using any commonly used modern web browsers.

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