



Dynamic active telepathology over National Health Laboratory System (NHLS) network, South Africa. Feasibility pilot study using Nikon Coolscope

L Banach, A Stepien, J Schneider, E Wichrzycka-Lancaster

NHLS and Walter Sisulu University, Mthatha, South Africa.

banach@telemed.utrac.ac.za

Abstract

Introduction: Telepathology recently entered a new era with introduction of digital microscopes combined with Internet technology. The microscope allows viewing real time of whole slide (macro) as well as different chosen fields in four different magnifications.

Methods: Three Nikon Coolscope were installed in NHLS laboratories in Mthatha, East London and Port Elizabeth. All these microscopes are connected to NHLS server allowing real time viewing of the full slide at any time of the day using Internet browser. Viewing is possible from any PC connected to NHLS Intranet. Challenge was to be able to view slides from other than NHLS computers due to NHLS IT Department network security measures. This was solved by installing NHLS Virtual Private Network server. About 60 cases were viewed by pathologists in Cape Town (Stellenbosh University) and Pretoria (MEDUNSA).

Results: All users assessed the system as a helpful tool allowing easy access to cases needed consultation or second opinion. The quality of images was very good.

Discussion/Conclusion: Our experience with Nikon Coolscope is positive. It is occurred to be an excellent tool for remote small histopathology departments lacking specialists in such areas as dermatopathology, oncology, and haematopathology. Further studies are needed especially in the scope of full utilization of the microscopes installed and impact on laboratory services.

Keywords: Internet Telepathology, Dynamic, Coolscope, Digital Microscope.

