

“Digital pathology has enhanced our practice with an improved workflow that helps to speed up diagnostic turnaround times for patients.”

Dr. Mark Wyche - Histopathologist, Sullivan Nicolaides Pathology, Toowoomba

Customer

Sullivan Nicolaides Pathology (SNP), Queensland, Australia

Challenges

- Demand for histopathology services is increasing
- Servicing a vast but sparsely populated area causes logistical and financial challenges

Solution

Digitization of pathology workflows with Philips IntelliSite Pathology

Results

- Reduced dispatch time for pathologists serving rural areas
- Reduced time for subspecialty consults and second opinions
- Reduced costs of shipping tissue slides between laboratories
- Simplified preparation for multidisciplinary collaboration

Digital pathology speeds up collaboration across laboratories

Faced with increasing demand for histopathology services in a vast but sparsely populated area in Australia, Sullivan Nicolaides Pathology (SNP) was looking for ways to increase its workflow efficiency while reducing diagnostic turnaround times for regional and rural patients.

After assessing digital pathology solutions from four different vendors including Philips, SNP in 2016 decided to proceed with digitization using the Philips IntelliSite Pathology Solution. SNP is now on track to become Australia's first fully digitized pathology network. Rapid scanning and sharing of images of tissue slides across locations supports faster turnaround times and improved collaboration for diagnosis and treatment.



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Histopathologist, Sullivan
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Toowoomba**

Sullivan Nicolaides Pathology (SNP) in Australia is one of the largest members of the global Sonic Healthcare Group. SNP offers high-quality pathology services to doctors, private hospitals and nursing homes in Queensland, northern New South Wales and Darwin - operating from laboratories in Brisbane, Toowoomba, Townsville and other locations along the east coast.

Challenge

The Australian state of Queensland covers 1.7 million square kilometers but has a population density of only 2.86 people per square kilometer. Adjacent regions in Northern New South Wales and the Northern Territory are home to an even sparser population.

Servicing such a vast area with a thinly dispersed population creates logistical and financial challenges for SNP. Transporting tissue specimens of patients between locations for laboratory inspection adds

to turnaround times for regional histopathologists, with physical shipping carrying a price tag as well. At the same time, demand for histopathology services is on the rise, with an expectation of faster diagnoses.

Solution

SNP recognized that digitizing its pathology processes could enhance the delivery of high-quality, accessible healthcare to regional and rural patients, in a cost-effective manner that sustains business growth. With digital pathology, scans of patient tissue slides can be quickly shared for collaboration across laboratory sites.

Between 2013 and 2016, SNP assessed digital pathology solutions from four different vendors including Philips.

SNP unanimously chose to proceed with digitization using the Philips IntelliSite Pathology Solution, identifying it as delivering “consistently superior image quality, providing the confidence needed to perform diagnosis from scanned images”. The Philips solution also yielded the shortest average scan time in the SNP laboratory environment, scanning 37% more slides per hour than the model with the longest scan time. Easy integration into existing laboratory workflow was another decisive factor behind SNP’s choice.¹

Results

SNP is on track to become Australia’s first fully digitized pathology laboratory. According to Dr. Mark Wyche, histopathologist at SNP in Toowoomba, the benefits are numerous.

“Digital pathology has enhanced our practice. I can now send specimens for immunochemistry with the evening courier to our Brisbane laboratory where they will be prepared, scanned and ready for me to review on screen the following morning. The technology has also facilitated collaboration. Digitized slides are convenient for the rapid sharing of diagnostic material with other histopathologists from remote locations.”

“Collaboration with clinical colleagues has benefited as well,” Dr. Wyche continues. “In multi-disciplinary team meetings, scanned slides are a convenient method of demonstrating pathology to clinical colleagues. Surgeons and oncologists are able to review diagnostic images and more readily appreciate factors which are clinically relevant.”

SNP has now been using digital pathology for several years. “This allows for rapid review of archived tissue scans,” Dr. Wyche says, “which is useful for clinical meetings and routine practice in order to assess disease progress or determine response to treatment”.

SNP is also developing archives of scanned images for teaching purposes. Physically sharing slides for training among histopathologists can be cumbersome. Digitization has sped up this process, enabling ongoing education to maintain competency and accreditation of SNP’s histopathologists for excellent service delivery.

As a future direction, digital pathology opens the door to computational pathology – the combination of multiple sources of patient data and mathematical models to generate diagnostic inferences. Potential uses for SNP include the automated review and division of work into clinically high and low risk cases, pre-identification of tumor tissue, as well as identification of information undetectable to the human eye.

