



Tissue Grossing with Voice Recognition

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INTRODUCTION

Every specimen sent to the histopathology lab requires elaborate examination macroscopically and microscopically. The naked eye works hand-in-hand with the microscope to ensure an accurate diagnosis for the patients. Pathologist assistants (PA) conduct the macroscopic examination following which the final diagnosis is made by the pathologists microscopically. It is therefore crucial that gross descriptions are consistently concise.

METHODOLOGY

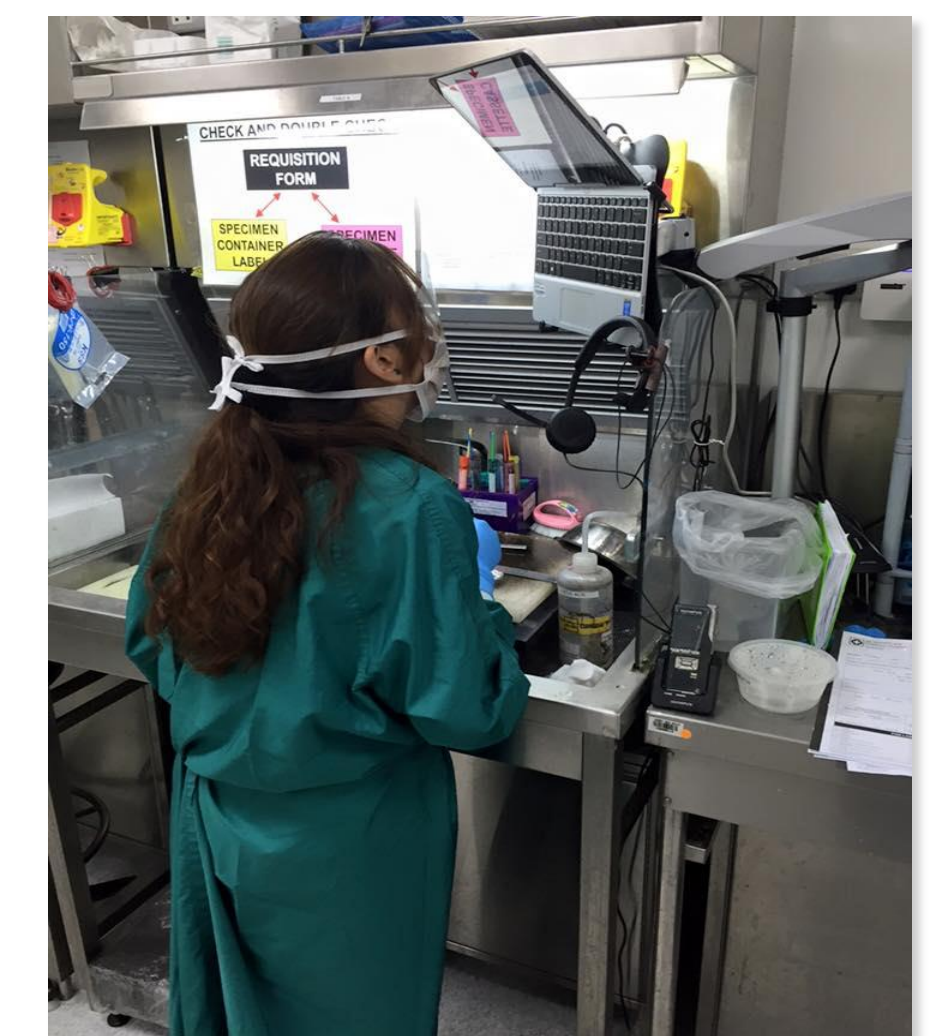
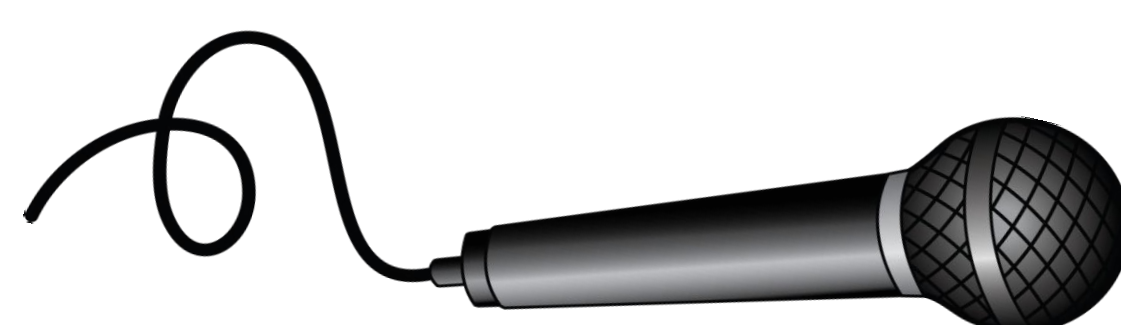
Back in the day, a secretary had to be by the side of PA and type as they are describing. This was unfavourable for both PAs and secretaries, one having to wait for the other. Workflow improved once the Dictaphones were set up, but still required secretaries to transcribe by ear. Dictation files were sometimes lost due to various technical errors, after which PAs had to somehow recall gross descriptions albeit inaccurately. Dragon NaturallySpeaking, the world's best selling voice recognition system, was first implemented for the pathologists. They were already desk bound thus setting up was much simpler. After successful implementation, a more elaborate set up was put in place for the PAs, which required new tablets, brackets to be installed, high quality microphone headsets and barcode scanners.

THEN



- PAs record their gross descriptions via a dictaphone.
- A secretary then transcribes the recordings a specimen at a time.
- Secretaries have other tasks at hand, and many times would begin transcribing the day's worth of recordings at the end of the day.
- Transcribing is difficult as other noises within the trimming room get recorded as well. Most times, reports are left incomplete due to words or measurements that cannot be deciphered by the secretary.
- PAs would have to look through every report to ensure each word and all measurements are as per their dictations.

NOW



- PAs are able to perform their reports directly into the laboratory information system (LIS) transcription module.
- After matching the barcode label on the request form with that of the specimen bag or container, the request form is scanned into the transcription module.
- PAs literally type the reports with their voices. Dragon allows the use of commands such as 'backspace', 'next line' and 'delete that'. Gross templates can also be saved as customized text commands.

RESULTS

This allows PAs to have complete control of how their descriptions are being presented in the report, while the respective specimen is still on their grossing table. The work process is now much more efficient and accurate, resulting in a significant reduction of workload for secretaries, thus allowing them time to focus on other aspects of their work.

CONCLUSION

At present, six pathologists and all three PAs utilize the Dragon daily. PAs have saved at least an hour of their time which they used to have to spend on checking their reports. It will soon be possible for the medical technologists (MT) to utilize Dragon as well for grossing of the small biopsies once more licenses are available, rather than requiring an extra MT to be present to handwrite measurements of the biopsies.