



Dear Colleague

What's new at Braemar?

Braemar has become the first private hospital in New Zealand to offer EUS – a service that combines endoscopy and ultrasound to diagnose and treat gastrointestinal problems. Gastroenterologist, **Dr Frank Weilert** talks to Venetia Sherson about the procedures and the benefits for patients...



Gastroenterologist, Dr Frank Weilert has always been driven by the need to solve problems rather than identify them.

So, when an opportunity came up to take his skills to new

levels through advanced technology, he grasped it.

Dr Weilert spent 14 months as an interventional endoscopy scholar at the San Francisco Pacific Medical Centre in the USA, studying the integration of endoscopic ultrasound (EUS) as a diagnostic and therapeutic tool.

"I had been a gastroenterologist for 10 years when I realised that endoscopic ultrasound (EUS) was the missing link for me. I knew I could attain a certain level of competence and skill but I didn't have the tools to take it to the next level. When I heard about this work (at CPMC), I connected the dots. I saw that here was a tool that combined not just the cerebral skills of medicine but the interventional

ability to diagnose and intervene in gastrointestinal problems."

He says the fellowship, which was intensive and offered only to practitioners outside the US, has given him the skills to offer EUS at Waikato Hospital for the past two years, and now extend the service to Braemar.

EUS allows the specialist to not only obtain precise images and information about the digestive tract and surrounding tissues and organs, but at the same time, undertake a range of procedures. These include obtaining tissue samples, pain management, draining of abscesses (from, for example, pancreatitis), unblocking ducts or placing fiducials for marking tumours.

"It has huge benefits for the patient. It means that in the same session you can provide complete diagnosis, intervention and treatment with a high degree of certainty for the patient. More than 90 per cent of cases are day-stay procedures. The alternative for many patients would be a long waiting period between diagnosis and intervention, which adds to psychological stress."

EUS has significant advantages over traditional ultrasound because it produces images of a much higher quality, providing precise information, which in turn means more accurate targeting of abnormalities. A small ultrasound probe is installed on the tip of the endoscope which allows it to act as a window to the organs of the body. "So we go down the oesophagus, the stomach and duodenum for example and we can access all the organs adjacent such as the lungs, mediastinum, heart, liver, gall bladder, pancreas and adrenal glands," says Weilert.

EUS is done from inside the body, near or even touching the targeted area, so that finer higher frequency imaging energy can be used. The superior resolution also provides continuous data avoiding the unseen and unrecorded gaps between still images of scans.

Because the instrument has a working channel, different sized instruments such as needles can be put through the channel to obtain tissue samples.

When samples are taken an on-site pathologist confirms they are adequate so a diagnosis can be made

and treatment tailored to what has been found. "That means we can send the patient away with some expectation that what they have received is the final diagnosis and treatment, or if they need to go back to the surgeon and have curative surgery."

EUS is particularly helpful in staging cancers (lung, oesophagus, stomach, pancreas, gallbladder, bile ducts and rectum) including tissue, sampling of tumours, evaluating chronic pancreatitis, bile duct abnormalities, including stones, and studying the muscles of the lower rectum, anal canal and nodules hiding in the intestinal wall.

Staging cancer is vital because the prognosis – and treatment – of the patient is related to the stage of the cancer at the time it is detected. "For example, we can see lymph nodes and biopsy them and therefore change the whole pathway of treatment."

The procedure can also avoid unnecessary surgery. "For certain conditions like pancreatic cancer, we can say, 'this is not treatable by surgery' and the surgery will not go ahead. It avoids intrusive surgery."

Likewise, if it is confirmed the patient does not have cancer, surgery will not proceed.

EUS is also effective for benign conditions. "For example, if someone has suspected stones in the bile duct, if we confirm the stone with EUS and confirm intervention is required, we keep the patient asleep and do the second procedure in the same setting. In at least a third of patients with benign disease, we can avoid unnecessary procedures."

Dr Weilert says EUS has traditionally been considered a niche market because the training and expertise is difficult to attain. His 14 month training at CPMC involved 15 hour days, five days a week. "I was able to observe 400-500 procedures in the first three months and then perform

more than 1200 procedures. It was total immersion in the technologies. The volume was very different to what we would be able to provide here."

Braemar will be the only private hospital in New Zealand to offer the EUS service.

Dr. Frank Weilert says the advantages of the procedure are exceptional. "More precision, more ambulatory care and more combined same-day service. This reduces surgical intervention. But it also makes things possible that were never possible before."

In the future, he says the treatment will involve such things as placing radiotherapy beads within tumours so treatment can be localised. Some other studies are looking at delivering chemotherapy agents through the technology so they can be localised only to the tumour. The placement of fiducials (markers) means side effects of radiotherapy are reduced, particularly in organs adjacent to the heart and kidneys.

"It will continue to offer new options because now we have this conduit of access, it becomes a question of what else do we need to access?"

He says new tools that allow greater precision and intervention are being developed. "Most of the tools we have had historically were borrowed from other specialties. But endoscopic technology has driven the manufacturers to provide specific tools for our purposes now. We now have an eye inside the body. EUS provides the tool to see the structures you need to access. It replaces the natural eye."

Frank says he is delighted to have joined Braemar in offering the service. It has taken two years to set up but he says it will attract patients from around New Zealand.

Born in Germany, he attended medical school in Johannesburg but completed his post-graduate training

Dr Frank Weilert

Qualifications

MB Bch 1991 Witwatersrand;
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Areas of Specialisation

Internal Medicine – Gastroenterologist

Specialist Training

Bachelor of Medicine Bachelor of
Surgery University of Witwatersrand –
South Africa 1991

Fellow of the Royal Australasian
College of Physicians –
New Zealand 2001

Positions & Memberships

Consultant Gastroenterologist,
Waikato Hospital.

Currently Working at Braemar Hospital?
Yes

in New Zealand and Australia. He says with his skills in EUS he could now go anywhere in the world but New Zealand is home for him, his wife and their four children. "I certainly don't want to be anywhere else but here."

**Kind Regards,
Pat Bary – Chairman**



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**Braemar
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Your choice for excellence

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