



Team training was a really pivotal moment for us

Gianfranco Butera began his career in cath labs in 1997 and has worked in Milan and then in London as director of the Cardiac Cath lab. Since 2021 he is director of the invasive cardiology at Bambin Gesù Hospital. Bambin Gesù is a 700-bed pediatric hospital with the largest pediatric cardiology department in Italy. Dr. Butera leads strategy at Bambin Gesù for the cath lab department, the adult congenital team, and the fetal and neonatal cardiology team. He is also heavily involved in mentoring and training staff in cardiology procedures in various societies such as AEPC and PICS.



Dr. Butera speaks highly of the increased level of detail in patient data that's available when performing cardiac catheterization via intervention MRI vs traditional cath lab procedures.

'We know there are several limitations in terms of evaluating the pulmonary vascular resistances in the cath lab. And we know that MRI is the gold standard for measuring pulmonary and systemic flows. So, by putting together this information – exact evaluation of flows plus the direct measurement of pressures – we can achieve very precise information in several groups of patients.'

The patients that benefit most from cardiac catheterization via iMRI include those with cardiomyopathy, pulmonary hypertension, and single-ventricle patients, he says. He notes that having this level of precise data for these patient groups can improve care following the procedure and have a positive impact on patient outcomes.

Dr. Butera also mentions the reduced risk for patients using iMRI vs cath lab. 'With MRI, patients and personnel are not exposed to X-rays. This is particularly important in patients, because many of them need to undergo multiple procedures during their lifetime. So, it would be an advantage to reduce the burden of X-ray exposure,' he says.

Radiologists and cardiologists at Bambin Gesù were 'very enthusiastic' about the shift to iMRI for cardiac catheterization, Dr. Butera says. He notes that referring physicians would often order both MRIs and catheterizations for their cardiac patients, and that there was an opportunity to educate physicians about the benefits of performing both procedures at once with interventional MRI. 'We were able to ask the physician to change the referral letter, and then schedule the patient for an MRI cath. 'My colleagues are very supportive of these new ways of doing things,' he says.

'This dual-procedure approach benefits not only the patient, in terms of convenience, but also the hospital, in terms of efficiency and cost savings,' Dr Butera explains.

The next step, now that MRI catheterization has been adopted at Bambin Gesù, says Dr. Butera, is broader education both within and outside the walls of that hospital. He's currently planning a department-wide meeting at the hospital to educate leadership and colleagues alike, sharing updates about what they're doing with iMRI and the benefits they have seen.

Peer-to-peer training from one hospital to another also plays an important role in wider adoption of cardiac cath via iMRI. For Bambin Gesù, this is a process that started with a core group of their cardiology team visiting a hospital in London where the procedure had already been implemented and was being regularly performed, so the Bambin Gesù team could observe and learn in a real-world setting.

'This was a really pivotal moment for us,' Dr. Butera says. 'The London team showed us some tips and tricks for performing cath procedures in MRI, and I really appreciated the support and enthusiasm from that team. When there's a big change to be implemented, it's so important to have a team of people who are fully motivated.'

And Dr. Butera plans on continuing that cycle of enthusiastic peer-to-peer training. 'I've contacted several colleagues in Rome who are treating patients for whom MRI cath would be helpful. I've told them that they can perform two procedures at once and get better physiological data to improve the care of their patients. We're planning to have those colleagues come to our hospital to see how we do what we do. Soon, there will be other hospitals in Italy using this approach.'