



UNIVERSITY OF
NEWCASTLE

INSTITUTE FOR REGIONAL FUTURES

Research, Evidence and Strategy to support Regional Development

The Institute for Regional Futures is one of the University's three flagship research institutes, partnering with governments, industries and communities by delivering research, evidence and strategy to support them to make the best decisions for their future and the future of their regions. Our research focuses on delivering impact across three research priorities: Regions in Transition, First Nations Collaboration and Safe and Resilient Communities.

PARTNERSHIP CAPABILITIES

- Hunter Insight Series and Dashboard for regional data analysis
- Cross-sector collaboration and partnership development
- Grant development and funding support
- Research and project development addressing diverse regional challenges

PROVEN IMPACT

- **Evidence-Based Regional Development:** Provides research and data analysis to support government, industry, and community decision-making for regional futures
- **Cross-Sector Partnerships:** Facilitates collaboration between diverse stakeholders to address complex regional challenges
- **Targeted Research Impact:** Delivers solutions across three priority areas - Regions in Transition, First Nations Collaboration, and Safe and Resilient Communities

The Institute supports research addressing important challenges facing local, national and international regions. Our impact comes from collaboration with government, industries and the community through key activities including supporting university researchers, facilitating cross-institutional partnerships, and delivering regular events and workshops for both internal and external partners. Our current work focuses on developing rural and regional health workforces, a review of liquor outlet density and alcohol related harm, circular economy development, building creative and regional economies, post-mining land use, energy transition and the expansion of a series of research networks that build partnerships and collaborative research projects.



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AWAITING IMAGES

JOHN HUNTER HOSPITAL ACUTE **STROKE** **RESEARCH AND INNOVATION TEAM**

Pioneering Stroke Care Innovation for Regional and Rural Healthcare

The John Hunter Hospital Acute Stroke Research and Innovation Team has pioneered breakthrough innovations in stroke care technology, pharmacotherapies, and care models over the past 20 years, transforming access to life-saving treatments in regional and rural healthcare settings. Our team leads nationally and internationally in stroke care innovation, specialising in advanced brain imaging, telestroke services, prehospital care protocols, and next-generation thrombolytic therapies that deliver the most powerful treatments known to medicine.

PARTNERSHIP CAPABILITIES

- **Advanced Multimodal CT Brain Imaging:** First nationally to introduce cutting-edge brain imaging into rural hospitals for reperfusion therapy decision assistance
- **Telestroke Care Platforms:** First nationally and internationally to use advanced imaging to guide telestroke delivery
- **Prehospital Triage Protocols:** First nationally to develop and prove benefits of prehospital triage and bypass protocols
- **Lightweight Brain Imaging Devices:** First internationally to deploy portable brain imaging in prehospital settings with telestroke support

PROVEN IMPACT

- **Clinical Practice Changes:** Tenecteplase testing led to national and international guideline changes, becoming the preferred approved acute stroke thrombolytic therapy
- **Expanded Access:** Advanced brain imaging technology spread to smaller hospitals, opening reperfusion therapy access to hard-to-reach regional and rural communities
- **National Implementation:** Proven prehospital triage and bypass protocols rolled out and scaled up nationally
- **Cost-Effective Care:** Therapies not only save lives but reduce death dependency and healthcare costs
- **Workforce Development:** Programs support education and training of stroke expert medical, nursing and allied health workforce

REVOLUTIONIZING STROKE TREATMENT WITH TENECTEPLASE

Our groundbreaking research on tenecteplase has fundamentally changed stroke care globally. Through rigorous clinical trials, we demonstrated that tenecteplase is superior to the previous standard treatment (alteplase) in terms of both efficacy and safety. This represents the first major advance in intravenous thrombolytic therapy since 1995, with our findings influencing national and international guidelines for acute ischaemic stroke care and transforming everyday clinical practice worldwide.

AWAITING IMAGES

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