The Agency for Clinical Innovation (ACI) works with clinicians, consumers and managers to design and promote better healthcare for NSW. It does this by:

- **service redesign and evaluation** – applying redesign methodology to assist healthcare providers and consumers to review and improve the quality, effectiveness and efficiency of services
- **specialist advice on healthcare innovation** – advising on the development, evaluation and adoption of healthcare innovations from optimal use through to disinvestment
- **initiatives including guidelines and models of care** – developing a range of evidence-based healthcare improvement initiatives to benefit the NSW health system
- **implementation support** – working with ACI Networks, consumers and healthcare providers to assist delivery of healthcare innovations into practice across metropolitan and rural NSW
- **knowledge sharing** – partnering with healthcare providers to support collaboration, learning capability and knowledge sharing on healthcare innovation and improvement
- **continuous capability building** – working with healthcare providers to build capability in redesign, project management and change management through the Centre for Healthcare Redesign.

ACI Clinical Networks, Taskforces and Institutes provide a unique forum for people to collaborate across clinical specialties and regional and service boundaries to develop successful healthcare innovations.

A priority for the ACI is identifying unwarranted variation in clinical practice and working in partnership with healthcare providers to develop mechanisms to improve clinical practice and patient care.

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Foreword

This report provides an update on Agency for Clinical Innovation (ACI) initiatives that have made significant progress in the past six months, from September 2015 to February 2016.

Improving the health system and delivering better outcomes for patients is achievable if we collaborate more broadly and effectively, and involve local clinicians and healthcare providers.

We must listen carefully to the feedback that the health system provides – that clinicians and managers find it difficult to navigate the improvement initiatives available in NSW, many of which fall on the same people to implement.

At ACI, we are working to identify different ways to work and collaborate to maximise the benefits that clinicians and care providers gain from their partnership with us, and to continuously build capacity to deliver the best possible health outcomes for patients in NSW.

I commend the local clinicians, managers and consumers who work with our teams to test and deliver the service improvement initiatives detailed in this report. We share a common goal of wanting to make a real and positive difference to patient care.

Dr Nigel Lyons
Chief Executive
Agency for Clinical Innovation
Introduction

The Agency for Clinical Innovation works with clinicians, consumers and managers to design and promote better healthcare for NSW.

Our goal is to be recognised as the leader in the NSW health system for delivering innovative models of patient care.

We provide a range of services to healthcare providers including:

- service redesign and evaluation
- specialist advice on healthcare innovation
- initiatives including models of care, guidelines and frameworks
- implementation support
- knowledge sharing
- continuous capability building.

Visit the Innovation Exchange to learn more about local innovation and improvement projects from across the NSW health system: www.aci.health.nsw.gov.au/ie

Visit the Excellence and Innovation in Healthcare portal to learn more about ACI and Clinical Excellence Commission (CEC) initiatives: www.eih.health.nsw.gov.au
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Aim

- To provide early cardiac reperfusion for patients with ST elevation myocardial infarction (STEMI) who present to hospitals without 24-hour on-site medical cover.

Summary

The ACI Rural Critical Care Taskforce developed the Nurse Administered Thrombolysis (NAT) Protocol for ST Elevation Myocardial Infarction (STEMI) based on the Hunter New England and Illawarra Shoalhaven Local Health District models in consultation with key clinicians. The NAT protocol was released in October 2015 following extensive consultation.

NAT provides early reperfusion for suitable STEMI patients in rural/remote hospitals without 24-hour on-site medical cover. Criteria for implementing the NAT protocol include: there is no medical officer on site; a NAT-accredited registered nurse (RN) is present; a second person is available to check medications; all criteria in the NAT screening tool have been met; and the patient has given verbal consent.

The NAT protocol is aligned with the ambulance pre-hospital thrombolysis (PHT) model to ensure a consistent statewide approach. When a 12-lead ECG meets transmission criteria, both models involve transmission to an ECG-reading service to confirm STEMI. If STEMI is confirmed, and there are no contraindications, the accredited RN is authorised under NAT to administer specific medications and the paramedic is authorised under PHT.

Background

The State Cardiac Reperfusion Strategy aims to improve outcomes for patients with acute coronary syndrome and reduce time to reperfusion for STEMI. It includes four components: pre-hospital assessment for primary angioplasty (PAPA); paramedic administered pre-hospital thrombolysis (PHT); Nurse Administered Thrombolysis (NAT); and the clinical support model.

The ACI, in partnership with NSW Ambulance and local health districts, has successfully implemented PAPA, PHT and the clinical support model across NSW.

Four of the six remaining rural local health districts have expressed interest in participating in NAT. The implementation will be supported by the Rural Critical Care Taskforce with a comprehensive ACI training and accreditation package.

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Aim
- To provide integrated medical and palliative care closer to home for people with end-stage kidney disease in NSW.

Benefits
- Improved quality of life for patients
- Improved management of symptoms
- Improved staff skills.

Summary
Renal supportive care encompasses advance care planning and end-of-life care. It is suitable for people who are following a non-dialysis pathway and for those with a poor quality of life despite dialysis.

Three focal hubs have been set up in locations selected for their geographic convenience for patients and existing expertise. The hubs will be networked with other renal units in NSW to facilitate renal supportive care. Each hub will support the staff of its networked renal units by providing education, mentoring and long-term backup.

Background
Implementation of the Renal Supportive Care Program began in March 2015 following the distribution of funding to local health districts across NSW.

The renal supportive care working group, in collaboration with the ACI, has developed an implementation plan for the next three years and a framework for measuring accountability and outcomes of services. A number of symposiums to raise awareness of the program have been held.

The program is expected to improve people's quality of life as well as improve their healthcare experience because of improved staff skills from education and training.
Strategic initiative
Align work programs with our pillar partners to demonstrate a coordinated approach to delivery of programs in the LHDs.

Aim
- Establish baseline level of environmental cleanliness informed by three external environmental cleaning audits per facility. To ascertain methods by which units are cleaned, resourcing, training education and clinical governance.
- To pilot and validate the Clinical Excellence Commission NSW environmental cleaning audit tool against an established standard.
- To inform quality improvements in environmental cleaning standards in BMT and Haematology units.

Benefits
- Improved compliance with the NSW Environmental Cleaning Policy
- Support for accreditation against National Safety and Quality Health Service (NSQHS) Standards
- Reduced healthcare costs and hospital-associated infections.

Summary
Following initial audits in 2013, the ACI commissioned a further round of external cleaning audits in August 2015. Overall, results were positive, with 12 of 14 units exceeding the 90% acceptable quality limit, as outlined in the NSW Environmental Cleaning Policy. This shows a significant improvement from the 2013 audit where none of the 15 BMT units achieved the recommended 90% acceptable quality limit for extreme risk functional areas.

The August 2015 results include:
- two units achieving 100%
- eight units achieving above 95%
- scores for the two units below the acceptable quality limit ranging from 88% to 89%
- 11 units maintaining or improving their score from the last round of audits.

Background
The BMT Network began an Environmental Cleaning Project with 15 NSW blood and marrow transplant units in 2013. To sustain improvements, the Network has supported annual external environmental audits, as recommended in the Environmental Cleaning Policy. The 2015 audit results represent a continued and sustained improvement in environmental cleaning across the majority of the BMT Network. Recommendations from the 2015 auditing round are currently under review to identify further opportunities for improvement.

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**Aim**

- To standardise an Adult Subcutaneous Insulin Chart and minimise risks in insulin prescription, administration and documentation.

**Benefits**

- Improved clinical practice
- Ease of reference to necessary information on glycaemic management
- Delays in clinical management minimised.

**Summary**

The Adult Subcutaneous Insulin Prescribing Chart combines prescription and administration with blood glucose, ketone monitoring and glycaemic management. The chart is designed to minimise delays in management decisions and provide clinicians with clear guidelines for insulin prescription and administration, glycaemic management and safe supplemental insulin use. Standardising prescribing charts provides a common tool for clear communication, documentation, interpretation and administration of insulin orders across NSW. Including daily blood glucose and ketone monitoring on the chart makes it possible to see a trend of clinical data at a glance. It also makes it easy for staff to refer to recent readings when prescribing and administering insulin doses. Doses supplied by telephone order, supplemental doses and once-only orders can all be recorded in this single document. The chart provides best practice guidelines for glycaemic management to assist clinicians who may not have immediate access to the guidelines or specialist services. Providing guidelines at the bedside, and standardised monitoring and prescribing, should minimise delays in management decisions, provide better management of subcutaneous insulin, minimise the risk of patient harm, and provide safer patient care. Following an evaluation in 2015, ACI has prepared a response including an action plan to help local health districts use the chart.

**Background**

The Adult Subcutaneous Insulin Prescribing Chart was piloted in two hospitals in 2012. An implementation workshop was held in October 2013 with representatives from each local health district. The chart was released statewide in November 2013. A 2015 evaluation report included focus group discussions, chart audit and survey results from four local health districts. The Medication Safety Expert Advisory Committee and the State Forms Committee have endorsed the chart.
Aim

- To make better use of existing data and information by initiating and coordinating a linked, de-identified resource: the Critical, Acute Care, Trauma and Emergency (CATE) Public Health Register.

Summary

The NSW ACI CATE Public Health Register will ultimately link over 18 datasets, which will enhance the availability and use of linked data for management and quality control activities. The register will provide a broad picture of health outcomes, such as fact and cause of death, for a number of ACI Networks, Taskforces and Institutes. It will include information such as: trauma data; an intensive/critical care cohort; admitted patient; emergency department; mortality; ambulance; and National Weighted Activity Unit.

Personal information from datasets will be provided to the Centre for Health Records Linkage (CHeReL) to provide a unique identifier for the purposes of data linkage in the register. The register itself will not include identifying information.

Data held in the NSW ACI CATE Register will be securely stored and accessed via the NSW Ministry of Health’s Secure Analytics for Population Health Research and Intelligence (SAPHaRI) population health data warehouse, which provides a strong governance platform for hosting, storing, accessing and reporting data from the Register.

The CHeReL has created linkages for the first iteration of CATE. The ACI is negotiating with the relevant data custodians for the linkages created by the CHeReL to be applied to the individual datasets to form the basis of the CATE Public Health Register.

Background

The NSW CATE Public Health Register is formed under provisions outlined in sections 97 and 98 of the Public Health Act 2010 (NSW).

CATE is the culmination of an extensive collaborative effort involving the ACI, the Centre for Epidemiology and Evidence, the CHeReL, NSW Ambulance and other partners.
Aim

- To support staff capability in providing individualised care to people who call multipurpose services ‘home’.

Benefits

- Improved lifestyle, independence and wellbeing for people living in multipurpose services
- Compliance with National Safety and Quality Health Service accreditation requirements.

Summary

A Multipurpose Service (MPS) Model of Care Reference Group has been established to explore strategies that will promote individual person-centred care and a caring culture for aged residents living in multipurpose services.

Ten multipurpose service facilities were selected for data collection and consultation between September and November 2015. This diagnostic phase investigated the residential aged care needs using a mixed method approach comprising: site visits; interviews with residents, carers, families and multidisciplinary staff; online surveys; environmental audits; and a literature review.

The data was themed, analysed and presented to the MPS Reference Group in a two-day Solutions Design Workshop in December 2015. Eight principles of care were developed from the key themes, representing the core elements of providing person-centred care and a homelike environment.

The principles of care and associated resources will function both as an assessment tool and as an information resource with a toolkit to enhance personalised care to improve quality of life and wellness for residents of multipurpose services across NSW.

The model of care will help local health districts adopt person-centred residential aged care approaches, and will help multipurpose services meet NSQHS accreditation requirements.

Background

Approximately 400 people live in multipurpose services across the state, with this number expected to rise as more multipurpose services are developed.

Although the majority of people cared for in a multipurpose service are elderly residents, multipurpose services are currently accredited under National Safety and Quality Healthcare Standards with no requirement to meet Commonwealth aged care standards.

The ACI collaborated with the NSW Ministry of Health and Health Infrastructure to develop A model of care for living well and promoting wellbeing in multipurpose services.

Gaps between the aged care standards and the National Safety and Quality Health Service Standards that relate to the quality of life and lifestyle of residents were identified as:

- provision of a homelike environment
- role of the person in their own care
- cognitive impairment
- hydration and nutrition
- leisure activities and lifestyle.
**Telehealth**

**Strategic initiative**
Continue to build local capability in redesign, innovation and sustained improvement.

**Aim**
- To improve the delivery of healthcare programs to patients, facilitate the delivery of models of care and other health-related activities
- To provide equity of access including for people who may be disadvantaged.

**Benefits**
- Increased access to specialist care and specialist input to care
- Treatment and care close to home, reducing travel costs and separation from family
- Promotion of self-care management
- Reduction in feelings of isolation for clinicians and patients
- Improved clinical education, decision-making and safe treatment of patients arising from improved communication between clinicians
- Feeling of team-membership even for clinicians located in a rural area.

**Summary**
Since its inception in 2013, telehealth at ACI has been used to increase access to a number of healthcare programs.

**Completed projects include:**
- spinal cord injury pain clinic telehealth service from Greenwich Hospital
- tele rehabilitation randomised control trial with chronic obstructive pulmonary disease patients
- connecting tertiary pain clinics to rural services for education and support
- connecting NSW Health pain clinics to primary care enabling access for rural and remote communities
- spinal cord injury telehealth clinics from Royal North Shore Hospital and Royal Rehab.

**Projects in progress include:**
- burns telehealth program and peer support program
- urinary continence telehealth clinics
- telestroke
- high-risk foot services telehealth model
- intensive care service model using telehealth.

**Background**
For people living in rural, remote and isolated communities across NSW, receiving expert care can be a challenge due to workforce availability and geographical isolation. Telehealth can help break down the barrier of distance for patient treatment and care and also improve staff education and networking. Telehealth can be used to deliver a service to a community that they may not have otherwise have access to.

The ACI sees telehealth as a tool that can help deliver and facilitate models of care and other health-related activities, providing equity of access for all people including those who may be disadvantaged, and improving the delivery of healthcare programs to patients.

Telehealth is the secure transmission of images, voice and data, between two or more units via telecommunication channels, to provide clinical advice, consultation, monitoring, education and training or administrative services. Telemedicine uses the technology specifically to provide, support and improve access to high quality clinical healthcare.

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Junior medical officers’ capability

Strategic initiative
Develop strategies to identify new models to broaden clinical engagement.

Aim
- To increase workforce capability in leadership and improvement
- To promote a transparent, patient-centred culture of improving service
- To foster a culture of involving staff with a frontline perspective in service improvement, innovation and implementation.

Summary
Nine junior and four senior medical officers attended the Redesign school in 2015, and are graduating with extensive knowledge in service improvement methodologies, project management and change management. They have addressed high priority areas such as end-of-life care planning, integrated care, managing hospital patient flow and reducing unnecessary presentations to the emergency department.

The other programs, delivered in partnership with Sydney Local Health District and the CEC, have been highly rated. The ACI, the CEC, the Health Education and Training Institute and the other pillars are collaborating on the development of a resource and further strategies to promote junior medical officers’ involvement in service improvement.

Background
The Centre for Healthcare Redesign (CHR) invited local health districts to include junior medical officers (JMOs) in their teams at ‘Redesign school’ in 2015. The aim was to increase medical engagement for teams going through the CHR training program and to train the medical workforce in service improvement knowledge and skills to prepare them for future leadership roles. It also underpins the development of a culture of service improvement that includes and welcomes medical involvement.

A small number of medical staff are able to attend Redesign school, due to the time commitment, and other options for training in service improvement have been developed. CHR also partnered with the Clinical Leadership team at the Clinical Excellence Commission to deliver improvement training at the JMO Quality Awards Showcase and the Future Health Leaders National Conference in December 2015.

Benefits
- Engaged workforce
- Increased capacity for service improvement.

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Co-design

Strategic initiative
Implement a model for consumer co-design.

Aim
• To build capability in patient experience and co-design thinking, methods and practices across NSW Health.

Benefits
• Increased understanding of the evidence and imperative for working closely with patients, families and staff to improve or co-design healthcare services
• Improved capability to plan, deliver and evaluate a co-design project for effective sustainability
• Communities of practice and a co-design toolkit established to promote consistency in approach and sustainability
• Identified a collective of co-design leaders to promote learning, sharing and sustainability.

Summary
The Co-design Capability Strategy is designed to build capability in patient experience and co-design thinking, methods and practices within the ACI and more broadly across NSW Health.

The Intellectual Disability Hospitalisation Co-Design Project is example of the current use of co-design within ACI and, more broadly, NSW Health. This project is a collaboration between the ACI Patient Experience and Consumer Engagement (PEACE) Team, the ACI Intellectual Disability Network, the Metro Regional Intellectual Disability Network and the Kogarah Disability Assessment Service.

The project is designed to improve the hospitalisation experience for patients with intellectual disability, their carers and families, and staff who provide care and treatment.

The South Eastern Sydney Local Health District is now leading quality improvements in admission and discharge planning, staff training and carer and family involvement.

Background
Co-design is recognised internationally and within Australia as an essential component of innovation and improvement in healthcare. Co-design is a way of bringing patients, families and staff together to share the role of improving health services.

ACI’s PEACE Team will lead the rollout of the Co-design Capability Strategy: Learn, Do, Teach and Share in partnership with Dr Lynne Maher from Ko Awatea, ACI Networks, Taskforces and Institutes, the Centre for Healthcare Redesign, Knowledge Services, the Health Economics and Evaluation Team and the Clinical Redesign Project Implementation Team.

In the first half of 2016, more than 30 people from within ACI and across NSW Health will be actively involved in a co-design project through the ACI’s Rehabilitation Network, Bone and Marrow Transplant Network and the Brain Injury Rehabilitation Program.

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Aim
• To guide services and local health districts in constructing their own localised models of care.

Benefits
• An integrated approach to care
• Enhanced networks of support for care providers
• Better support for patients, families and carers.

Summary
Palliative and end of life care: a blueprint for improvement has been developed in partnership with the Clinical Excellence Commission and NSW Ministry of Health to provide a flexible guide for health services to meet the needs of people approaching and reaching the end of life, their families and carers. It is based on over 1200 consultations, reviews of evidence, an innovative fact of death analysis and rounds of revisions.

The Blueprint emphasises the need for an integrated approach to care that fosters relationships between specialist palliative care providers and care providers across all settings of care. It seeks to enhance networks of support, build skills and competence in providing care to those approaching and reaching the end of their lives across all care settings, and better support patients, families and carers along the way.

The Blueprint is accessible as a web-based resource, which will be developed and updated as new resources and evidence become available.

This online resource aims to guide services and local health districts in constructing their own, localised models of care. It emphasises that everyone can play a role in supporting, or providing care to, people approaching and reaching the end of life.

Background
The NSW ACI Palliative Care Network has undertaken extensive consultations with patients, their carers and families; specialist palliative care providers; primary, aged and acute care providers; other medical specialists; and range of other key stakeholders. Over 1200 stakeholders were consulted.

Research-based evidence was considered and the ACI’s Health Economics and Analysis Team undertook an innovative fact of death analysis.

The Diagnostic report: to inform the model for palliative and end of life care service provision identified 12 key learnings that directly informed the Blueprint.
Aim

- To provide practical and evidence-based guidance to health services establishing or expanding their risk stratification approaches to patient identification and selection
- To support the implementation of the NSW Integrated Care Strategy, one of the three strategic directions in the NSW State Health Plan: Towards 2021.

Summary

Patients at all levels of risk can benefit from some form of preventive intervention or care. The aim of patient selection and risk stratification is to direct care appropriately.

The Patient identification and selection handbook draws on Australian and international evidence to provide practical and evidence-based guidance to health services that are establishing or expanding their risk stratification approach to patient identification and selection.

Implementing a risk stratification approach is iterative: define a target cohort, identify and select patients for integrated care strategies, and match patients to appropriate integrated care interventions.

Background

Integrated care delivery benefits anyone with healthcare needs, however, it is particularly important for people with complex and chronic conditions. Integrated care helps them to better manage and maintain their own health and independence, and stay out of hospital for as long as possible.

Early identification and selection of people at risk of poorer patient health outcomes (risk stratification) will enable provision of appropriate integrated care interventions and mitigation strategies.

Events were held in September and December 2015 to provide guidance to local health districts and their partners, and test the approach outlined in the handbook through its application to the alignment of chronic disease management with the Integrated Care Strategy.
Aim

• To develop a toolkit of resources facilitating fascia iliaca blocks (FIBs) as a method of pain management in hip fracture.

Benefits

• Improved practical application of effective pain management
• Reduced harm from overuse of opiate medications
• Implementation support.

Summary

A toolkit, including guide, video, implementation approach, and audit tool, has been developed and implemented at St Vincent’s Hospital and modified for statewide implementation at sites with sufficient local governance to support such a procedure and approach.

The objectives of the toolkit are to:

• provide the tools and resources to enable the use of fascia iliaca blocks as an analgesic option for patients with acute hip fracture
• ensure patients with suspected or confirmed acute hip fracture are provided with safe and effective pre-operative pain relief.

Background

The aim of treatment for hip fractures is to ease pain and restore mobility as soon as possible, usually through surgery.

A fascia iliaca block is an injection given near the hip for people with fractured hip while waiting for surgery. It can ease pain for up to 12 hours, and can reduce the need for opiates.

The use of a fascia iliaca block can reduce adverse outcomes, reduce the risk of delirium, reduce the length of stay and improve both the patient experience and staff satisfaction.

Many supporting tools and resources were developed as part of this project.

A steering committee was convened and has overseen the development of the resources to ensure they align with evidence, current practice, variation in service design and staffing, and applicability across the state.


A feedback sheet is included in the toolkit to facilitate ongoing modification and review.
**Aim**

- To provide a comprehensive overview of key components, principles and next steps, as services look to integrate care for older people with complex needs, their carers and families through collaborative service design and delivery across sectors.

**Summary**

The ACI has led the development of a framework for older people with complex health needs, their carers and families to receive proactive, person-centred and evidence-based care, regardless of how or where they access it.

The framework is aligned with the NSW Ministry of Health Integrated Care Strategy and supports local partnerships to redesign and implement improved models of care.

Currently 11 sites across NSW are engaged in Building Partnerships projects. Each site aims to either improve the standard of a single component of care across multiple health conditions, or improve the standard of all components for a single health condition. Implementation of improved models of care will commence in early 2016 and evaluation will occur throughout the project cycle.

**Background**

People are living longer and enjoying active and rewarding lives as valued members of our community. In 2010, 1.02 million people aged 65 years of age and over were living in NSW. This figure is expected to double by 2050. However, for a growing number of older people, ageing will include living with complex health needs such as dementia and other chronic diseases. This will affect how we plan and design services to meet the needs of our local communities.

Effective solutions will require the combined efforts of older people, their carers and families, and all those involved in delivering services for older people, to meet the challenges of a rapidly changing environment.

In 2013, the ACI commenced work on *Building partnerships: a framework for integrating care for older people with complex health needs* in response to the NSW Ageing Strategy.

**Benefits**

- Engaged older people and their carers
- Shared processes, guidelines and tools to support providers to deliver care
- Aligned policy and supportive resources and incentives to deliver integrated care.
Aim

• To promote collaboration and service improvement across drug and alcohol and mental health services in NSW.

Benefits

• Increased clinician and consumer engagement
• Platform for discussing the priorities of clinicians, in partnership with consumers and managers
• Improved evidence-based initiatives, clinical guidelines and models of care.

Summary

The ACI Mental Health Network and the ACI Drug and Alcohol Network aim to develop and implement evidence-based innovative programs, frameworks and models of care to promote an integrated health system and better mental healthcare and drug and alcohol care, respectively, for people in NSW.

To achieve this, the Networks aim to work collaboratively with clinicians, managers, consumers and carers from community and primary healthcare setting, hospitals, community managed organisations, key organisations and other related key partners.

Background

The Mental Health Network was established in March 2015, and by the end of June had 340 members. The Network works with key stakeholders to develop and implement evidence-based programs, frameworks and models of care for people with mental health illness. It is committed to an integrated health system and promotes collaboration, innovation and quality improvement through improved consumer engagement.

Dr Nick O’Connor, Ms Leone Crayden and Ms Anne Francis (consumer) have been appointed co-chairs of the ACI Mental Health Network.

The ACI Drug and Alcohol Network was established in January 2015 in recognition of the need for a coordinated and integrated approach to the provision of high quality drug and alcohol services in NSW. The Network develops and implements evidence-based best practice models of care to meet the needs of people receiving drug and alcohol treatment services, and their carers and families.

Ms Jo Lunn and Dr Tony Gill have been appointed co-chairs of the ACI Drug and Alcohol Network.

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Stroke clinical variation

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Aim

• To improve operating theatre efficiency.

Summary

The Operating Theatre Efficiency program focuses on three key areas: efficiency measures, theatre costing and whole of surgery.

Guidelines have been developed to guide the management and governance of operating theatres in NSW public hospitals. They are intended to provide assistance to committees, managers and staff in the management of efficient operating theatres at hospital and local health district levels.

The guidelines provide practical information on operating theatre efficiency measures, management processes and cost considerations based on expert recommendations.

The focus of work for the operating theatre productivity index has been on defining and calculating a meaningful index not calculating the optimum level of efficiency.

The productivity index will be used to compare productivity of one entity over time or compare productivity with other entities.

The first stage is designed to be used in conjunction with other metrics in the Operating Theatre Efficiency Guidelines to improve decision-making and improve efficiency.

Background

The Operating Theatre Efficiency Guidelines identified a need for the development of a standardised method of assessing productivity.

Operating theatre efficiency will be a major project for the Surgical Services Taskforce and Health Economics and Evaluation Team in 2016 and the ACI will be seeking to partner with hospitals to further develop the index and identify priority areas for operating theatre projects in NSW hospitals.

The cost of the cancelled patient will be included in the Operating Theatre Productivity Index work and the ACI will partner with the Activity Based Funding team at the Ministry on this project.

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Strategic initiative

Align work programs with local health districts and other service providers to work together on agreed priority programs.

Benefits

• Standardised data to inform decision-making and improve operating theatre efficiency.
Intensive Care Service Model

Aim

- To standardise the way Level 4 Intensive Care Services are delivered, used and networked within a local health district or region, improving access and delivery of care to critically ill patients in NSW.

Summary

The Intensive Care Service Network has developed an Intensive Care Service Model for stand-alone intensive care units in smaller rural, regional and outer metropolitan NSW hospitals. This work has been led by clinicians from across NSW in consultation with key stakeholders.

The service model is a framework for the safe and efficient delivery of care to critically ill patients. It includes recommended standards in service delivery, governance, care provision and the establishment of integrated networks within a local health district or region.

In October 2015, ACI invited local health districts to partner in implementation of the service model. Due to the large number of sites expressing an interest, the ACI has committed to supporting 14 sites that responded over a phased implementation. The first phase, which includes nine sites, began on 11 January 2016.

Background

Level 3 and 4 intensive care units (ICUs) provide an important function, supporting the inpatient critical care needs for NSW, with over 26% of NSW ICU activity occurring in these units. The capabilities of a stand-alone intensive care unit determine the acuity of patients that can be safely admitted, the complexity of procedures and surgery that can be undertaken in a hospital and the number of patients requiring transfer to a higher level hospital for care.

Investigations revealed marked variation in the provision of Level 3 and 4 intensive care services across NSW. Reasons for the variation are multiple and complex.

Implementation of the Intensive Care Service Model will be a major change in the way intensive care services are delivered across NSW, because the model:

- aligns with the draft 2015 role delineation guide
- supports the move to integrated intensive care service networks across NSW, whereby the current stand-alone unit focus approach to intensive care service provision moves to a local health district service network approach
- will strengthen the support these units provide to the inpatient critical care needs of NSW.

Benefits

- Improved quality and safety of care for critically ill patients
- Improved coordination of care and reduced length of stay
- Improved patient outcomes through reduce unplanned admissions and transfers
- Improved patient and carer experience
- Increased support for staff in the delivery of care
- Improved use of local health district intensive care resources and enhanced critical care functions across a local health district.

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Aim

• To support the safe provision of procedural sedation across NSW public hospitals, ensuring that all clinicians who provide sedation have the necessary skills and access to appropriate training/resources.

Background

The minimum standards and toolkit are designed for the non-operating theatre setting and are intended to support non-critical care clinicians.

Sedation is part of a continuum of decreasing levels of consciousness, caused by the effect of sedative medications on the brain. With increasing doses, the parts of the brain that control the heart and breathing are depressed and, in some patients, breathing and blood pressure may be adversely affected.

The use of procedural sedation is increasing as more procedures are moved outside the operating theatre. Over 300,000 episodes of procedural sedation were undertaken across a number of specialty areas in NSW public hospitals last year.

Summary

While some services have well-developed local sedation policies and processes, there is no consistent approach across the state, local health districts or hospitals.

The aim of this project is to support the introduction of minimum standards for sedation care for those services where sedation is provided.

The ACI is supporting local health districts with local implementation of the Minimum standards for safe procedural sedation.

Benefits

• A consistent approach for procedural sedation across NSW
• Appropriate skills and training for clinicians who provide or support sedation
• Adequate support and resources for all sedation sites
• Address unwarranted clinical variation to prevent adverse events and poor patient outcomes
• Improved experience for patients through effective sedation use.

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Strategic initiative
Promote and undertake research into large scale system change.

Aim
- To systematically and contemporaneously assess the availability of statewide services and the translation into major trauma service delivery of care.

Benefits
- Improved quality of healthcare
- Increased insight into current models of care for trauma patients
- Design, evaluation and implementation of innovative models of patient care to reduce unwarranted clinical variation.

Summary
In order to assess the availability of statewide services, the following components of the NSW trauma system will be examined:
- resources and resourcing components of NSW trauma services
- adult patient outcomes for Major Trauma Service, regional trauma service and injured patients from metropolitan versus rural sectors
- outcomes for adult secondary transfer patients
- paediatric patient outcomes from major and regional trauma services, and injured patients from metropolitan versus rural sectors
- outcomes for paediatric secondary transfer patients
- paediatric outcomes by agency retrieval providers.

Stage One focused on pre- and inter-hospital transfer protocols and, in particular, the Trauma 1 (T1) protocol (completed January 2015).

Stage Two builds on Stage One with a focus on the patient journey from the time of trauma to discharge from hospital (currently under way).

Background
In NSW, consideration of the most appropriate configuration for adult trauma services prompted a comprehensive review of the entire trauma system. The review resulted in the publication in 2009 of the *NSW Trauma Services Plan*.

In 2013, it was deemed timely to conduct an evaluation of the trauma services across NSW. The evaluation will provide an opportunity to analyse the effectiveness and compliance with the *NSW Trauma Services Plan*.

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Aim

- To prevent avoidable vision loss and blindness by improving access to appropriate management for patients with non-acute disease, specifically diabetic retinopathy, glaucoma and uncomplicated cataract.

Summary

Ophthalmologist Andrew White and his team at Westmead Hospital have successfully gained funding from the Western Sydney Local Health District (WSLHD) to support the trial of the diabetic retinopathy/glaucoma service delivery model aimed at improving access to appropriate eye care.

The funding over five years will support the establishment of a remote community eye clinic in the Blacktown area with clear linkages and referral pathways to tertiary care at the Westmead Eye Clinic. The preferred model uses a shared public–private partnership between WSLHD and a private optometrist in the Blacktown area with telehealth as an enabler. It is anticipated that the community eye clinic will begin operation in March 2016.

The ACI has funded an evaluation of the trial after 12 months of operation.

The clinician-led working group for the uncomplicated cataract pathway has been working closely with the NSW Ministry of Health in the review of the Waiting Times and Elective Surgery policy to establish clinically recommended timeframes for a patient requiring cataract surgery in both eyes.

Local health district chief executives will receive information about both C-EYE-C service delivery models and be invited to express their interest in the trialling either the diabetic retinopathy/glaucoma or the uncomplicated cataract surgery model.

Background

The C-EYE-C project is a collaboration between multiple stakeholders including eye healthcare providers, endocrinologists, general practice, consumers, nongovernment organisations, and the ACI Ophthalmology Network. It is being undertaken in two phases.

Phase 1 saw the development and endorsement of two service delivery models by clinician-led working groups for patients with diabetic eye disease/glaucoma and uncomplicated cataract. A high level implementation plan was agreed for phase 2, which has commenced with the agreement to fund a ‘proof of concept’ trial at Western Sydney Local Health District.

Benefits

- Improved identification, vision screening, referral, access, treatment and management of the population at risk of non-acute eye diseases
- Clear communication pathways between service providers and between service providers and patients and carers
- Improved experience of patients and carers.