Independent Hospital Pricing Authority

Australian Non-Admitted Care Classification Development

Stakeholder consultation paper

February – April 2018

IHPA

Australian Non-Admitted Care Classification Development – Consultation

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Acronyms

ABF	Activity Based Funding
ACT	Australian Capital Territory
ADRG	Adjacent Diagnostic Related Group
AIHW	Australian Institute of Health and Welfare
AMHCC	Australian Mental Health Care Classification
AN-SNAP	Australian National Subacute and Non-Acute Patient
ANACC	Australian Non-Admitted Care Classification
AR-DRG	Australian Refined Diagnosis Related Groups
CAC	Clinical Advisory Committee
DVA	Department of Veterans' Affairs
ED	Emergency Department
eHRs	Electronic Health Records
eMRs	Electronic Medical Records
ePIP	Practice Incentives Program
EY	Ernst & Young
GP	General Practitioner
HITH	Hospital in the Home
ICD-10-AM	The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification
ICD-11	The International Statistical Classification of Diseases and Related Health Problems, Eleventh Revision (Draft)
IHPA	Independent Hospital Pricing Authority
JAC	Jurisdictional Advisory Committee
LHN	Local Hospital Network
MDCs	Major Diagnostic Categories
NACAWG	Non-Admitted Care Advisory Working Group
NEC	National Efficient Cost
NEP	National Efficient Price
NHCDC	National Hospital Cost Data Collection
NHRA	National Health Reform Agreement
NSW	New South Wales
NT	Northern Territory

Qld	Queensland
RfE	Reason for Encounter
SA	South Australia
SNOMED CT-AU	Systemised Nomenclature of Medicine – Clinical Terms – Australia
TAC	Technical Advisory Committee
Tas	Tasmania
Tier 2	Tier 2 Non-Admitted Care Services Classification
UDGs	Urgency Disposition Groups
URGs	Urgency Related Groups
Vic	Victoria
WA	Western Australia

1. Executive summary

The Independent Hospital Pricing Authority (IHPA) is an independent government agency established by the Commonwealth as part of the implementation of the National Health Reform Agreement 2011 (NHRA). The NHRA requires that IHPA, amongst other functions, develop and specify the classifications for services provided by public hospitals to be funded under an activity-based funding (ABF) arrangement. IHPA undertakes reviews and updates of existing classifications and is also responsible for introducing new classifications.

The Australian Non-Admitted Care Classification (ANACC) is a new activity based classification being developed by IHPA to replace the existing Tier 2 Non-Admitted Services Classification system (Tier 2). The ANACC system is being developed to provide an evidence-based classification system for non-admitted care services and IHPA's role is to ensure it has the capacity to take account of structural and technological changes, and supports funding and delivery of high quality care.

This stakeholder consultation paper seeks stakeholders' views on the potential characteristics of the ANACC system, including the patient condition and intervention characteristics that will form the key concepts in the classification hierarchy. The paper describes the changing non-admitted care landscape in Australia. Issues considered include Australia's demographic challenges and how this is impacting healthcare and service delivery, changes to the types of services provided in the admitted, non-admitted and primary care settings, innovations in models of care including chronic disease management and the impacts of digital transformation on data reporting and patient services. IHPA is seeking written comments on a series of questions posed throughout the paper.

Non-admitted services play an integral role within the health care continuum, supporting providers to seek alternative methods of patient care delivery outside the admitted patient hospital setting. Better aligning and integrating community-based programs to support discharge from admitted services and to prevent or substitute the need for an individual to be hospitalised is a key focus of policy and program development across Australia. Such a focus underlines the importance of ensuring that classification systems do not create a barrier for innovation or create artificial provider-centric boundaries.

Currently, non-admitted hospital care services are classified using Tier 2. It has been widely recognised that Tier 2 is not an ideal classification system for non-admitted care services for the purposes of ABF, research and broader support of policy objectives in the longer term, and was introduced as an interim measure for activity funding given that there are no suitable classification systems for non-admitted care services available nationally or internationally. Following a review of Tier 2 in 2014, it was recommended that IHPA commence the development of a new non-admitted care classification system. This recommendation was supported by states and territories and subsequently, in March 2014, the Pricing Authority approved the development of the ANACC system.

The ANACC system is being developed as a long-term classification for non-admitted care. It is intended to be a patient-based classification and, where possible, will be based on data elements that reflect the characteristics of patients rather than characteristics of the service provider or inputs to care. Introducing a patient-based classification is a significant departure from the current, provider-centric, Tier 2 classification and is an approach to classifying non admitted care which will be flexible enough to grow with the changing care delivery models. IHPA proposes to

use a set of general classification principles to ensure the classification is meaningful for patients, clinicians and jurisdictions. The ANACC system will be designed to allow for the collection and analysis of crucial data to support policies on funding, budgeting, cost analysis and models of care in the non-admitted care sector.

A wide range of non-admitted care services are considered to be in-scope for ANACC, such as hospital outpatient clinics, community-based clinics, services provided in patients' homes and non-admitted subacute services. Mental health care is considered out of scope for non-admitted care and will be classified through the Australian Mental Health Care Classification (AMHCC).

Pricing of non-admitted care services is a separate matter. IHPA consults on approaches to pricing public hospital services through its annual consultation on the Pricing Framework for Australian Public Hospital Services. Following development of ANACC and the availability of activity and cost data through the ongoing ABF data collection, IHPA will seek views on a pricing approach.

Submissions

Submissions should be sent as an accessible Word document to submissions.ihpa@ihpa.gov.au or posted to "Submissions" PO BOX 483 Darlinghurst NSW 1300. **Submissions close at 5pm on Friday 6 April 2018.**

All submissions will be published on IHPA's website unless respondents specifically identify sections that they believe should be kept confidential due to commercial or other reasons.

More information

The IHPA website provides up to date information on the development of ANACC, including links to key documents referred to in this stakeholder consultation paper: www.ihpa.gov.au.

This document assumes some knowledge of classification development. IHPA recognises the importance of a broader audience engaging in this consultation process. Should your organisation require further resources to assist in explaining the classification development process, please contact IHPA at enquiries.ihpa@health.gov.au.

Summary of consultation questions

IHPA is seeking written comments on the following questions:

1. Should the new classification for non-admitted care support the delivery of integrated care between health care settings? If yes, how?

2. Should the new classification for non-admitted care services account for and adapt to newer models of care and technology? If yes, how?

3. As the types of care delivered in admitted, non-admitted and primary care are challenged, how can the future ANACC system account for these changes?

4. The classification principles have been designed to guide and support the development of the future classification, do you agree with these and/or are there other principles that should be considered in developing ANACC?

5. Should IHPA continue to use service event as the ANACC unit of count? If yes, do you agree with the proposed revised definition of a service event? How could it be improved?

6. Should an episode be considered as a unit of count in the new ANACC? If not for all conditions, then for which specific conditions?

7. Non-admitted patients often present with multiple comorbidities, and may be treated under a chronic disease management model. Should the future ANACC system have a separate path for classifying chronic disease patients?

8. What implementation timeframe is required for jurisdictions to transition to a patient-based non-admitted care classification system?

9. What considerations should be made in relation to including a diagnosis-type variable in the future ANACC system?

10. Should presenting problem be used as the diagnosis type variable? If yes, do you agree with the proposed definition of 'presenting problem'?

11. What are your views on the proposed list of initial presenting problem/diagnosis-type and intervention-type groups presented at Appendix A? What refinements should be considered?

12. Do you agree with the list of complexity variables presented in Section 5.3? What other variables should be considered for the new ANACC system?

2. Introduction

IHPA is currently developing a new classification system for non-admitted health care to replace the current 'Tier 2' clinic-based system. There have been significant shifts and developments in non-admitted care in recent years, with this trend set to continue. A new classification system needs to respond to and anticipate these changes.

2.1   IHPA's role

IHPA was established as part of the implementation of the NHRA. Under the NHRA, the Council of Australian Governments unanimously agreed to the establishment of ABF as the primary funding methodology for public hospitals throughout Australia. The aim of a national ABF system is to improve the efficiency and transparency in the delivery and funding of Australian public hospital services. IHPA's overall functions and performance are governed by the Pricing Authority.

IHPA has a number of determinative functions as specified by the NHRA. IHPA's primary role is to determine the national efficient price and national efficient cost for public hospital services.

Other functions IHPA has responsibility for include determining adjustments to the national efficient price to reflect legitimate and unavoidable variations in the cost of delivering health services, determining data requirements and developing and specifying the classifications for services provided by public hospitals. IHPA undertakes reviews and updates of existing classifications and is also responsible for introducing new classifications.

2.2   Classification of non-admitted care patients

2.2.1   Purpose

Patient classifications aim to provide the health care sector with a nationally consistent method of classifying all types of patients, their treatment and associated costs, resulting in improved management, measurement and funding. Non-admitted care encompasses services provided to patients who do not undergo a formal admission process[1] and do not occupy a hospital bed. For example, non-admitted care may be provided in:

- hospital outpatient clinics
- community-based clinics
- patients' homes.

For ABF purposes, non-admitted care services that are considered to be 'in-scope' are independent of the service setting in which they are provided (e.g. at a hospital, in the community or in a person's home). This means that in-scope services can be provided on an outreach basis.

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[1] A formal admission process is an administrative process by which a hospital records the commencement of treatment and/or care and/or accommodation of a patient. This does not apply to the non-admitted care sector.

Under the current Australian ABF arrangement, non-admitted services are classified using Tier 2.

Tier 2 is used to classify a non-admitted care clinic to a single class, where all non-admitted patient service events provided by that clinic are subsequently classified to that Tier 2 class. Tier 2 is not a patient-centric classification system.

In 2014, IHPA conducted a review of non-admitted care classification systems. The review found that Tier 2 was undesirable for ABF purposes in the longer term due to the classification's clinic centric nature, and that no other classification was recommended as suitable for use in the Australian setting. A desirable new classification will be setting agnostic and be based on data elements that reflect the characteristic of patients. The primary recommendation of the review was the requirement to develop a new non-admitted care classification system.

The non-admitted classification system needs to be able to interface with the other classification systems in play within the health system. Patients may frequently move between settings, presenting a challenge for classification and funding. Some commonality in classification variables between settings will assist in delivering on classification principles and purpose. Other classifications that the non-admitted care will need to interact with are the Australian Refined Diagnosis Related Groups (AR-DRG) for admitted care, the Urgency Related Groups (URGs) or Urgency Disposition Groups (UDGs) for emergency care, the Australian National Subacute and Non-Acute Patient (AN-SNAP) classification for subacute and non-acute care, the Australian Mental Health Care Classification (AMHCC) for mental health care and in primary care, the Medicare Benefits Schedule (MBS). The interaction between non-admitted care and other classifications is further explained in section 4.3.

2.2.2 Classification supporting reform

Classifications adopted in healthcare are comprised of codes that provide clinically meaningful ways of relating the types of patients treated by a hospital to the resources required. They enable hospital and health service provider performances to be measured by creating a link between the patients treated and the resources consumed for providing those treatments. Understanding the relationship between patient treatment and resource consumption allows hospital and health service provider output to be measured, which forms the crucial data for policies on funding, budgeting and measuring costs.

Patient classification systems have a role to support health system trends and enable innovation. They aim to:

1. Support the measurement of health outcomes.

2. Assist in identifying patients with chronic and complex needs.

3. Enable service integration through continuity between acute, non-admitted and primary care settings – ability to map information between classification systems.

4. Maximise the benefits of investment (resources and clinician time) in eMR and the Australian Digital Health Agency's My Health Record.

5. Improve clinician communication with patients through better documentation.

6. Expand clinical department and system level information to improve quality of care and inform resource allocation.

7. Enable innovative funding (capitation models, pricing for safety and quality).

8. Support performance management.

These characteristics aim to ensure that information from health classifications can be used by jurisdictions, health services, clinicians and researchers for a variety of purposes including

clinical management, benchmarking, health services planning, research and epidemiological studies, budgeting, funding and improve patient care.

Although classification systems are a critical element of ABF systems, they have a multitude of uses beyond funding systems, including for research and shaping policy objectives. In developing the ANACC system, IHPA intends to ensure that health care service providers will be able to use the classification in the following ways:

- assist with the clinical management of patients, such as facilitating improved reporting of the types of patients seen, services provided and outcomes of treatment

- assist with the administrative management of patients and services

- statistical reporting purposes

- quality improvement initiatives, such as enabling benchmarking across similar services

- develop innovative and integrated models of care.

IHPA understands the scope of the classification beyond ABF and future use of ANACC will not be limited to the funding of non-admitted care services.

2.3   Project objectives

The ANACC system is being developed in-house by IHPA as a long-term classification for the non-admitted care sector to replace the existing Tier 2 classification. It is intended to be a patient-based classification and, where possible, will include data elements that reflect the characteristics of patients.

2.4   Project phases

The ANACC system is being developed by IHPA to provide an evidence-based classification system for non-admitted care services. Developing the classification includes:

- A comprehensive review of both national and international non-admitted classification systems to identify various data elements, cost drivers, classification structures and units of count (completed).

- A statistical data analysis of non-admitted care data to identify cost drivers and key data trends (completed).

- A national consultation to seek non-admitted stakeholders' views on the future characteristics of the ANACC system (underway).

- The development of a recommended classification system for non-admitted care services (2018-19).

- Reference documents necessary to support the implementation of the ANACC system for ABF purposes (2018-19).

2.5   Project governance

The development of the ANACC system is managed by IHPA and supported by the Non-Admitted Care Advisory Working Group (NACAWG) and specialist clinical and classification advisors.

NACAWG includes jurisdictional representatives from state, territory and Commonwealth health departments and representatives from IHPA's Clinical Advisory Committee (CAC). NACAWG also includes representatives from the following organisations:

- Allied Health Professions Australia
- Australian College of Nursing
- Private Healthcare Australia
- National Health Funding Body
- Royal Australian College of Physicians.

Once developed and approved by IHPA's committees and the Pricing Authority, the draft ANACC system version 1.0 will be presented to Health Ministers for final review and endorsement.

3. The non-admitted care landscape in Australia

The health of our population is critical to the social and economic wellbeing of the country. Like other developed countries Australia is facing challenges to address the pressure of demand growth from an ageing population, increasing consumer expectations, the rising burden of chronic disease and obesity and an explosion of high cost health technologies and treatments.

Common themes in strategies to design the future state health system look to address access, quality and financial sustainability through improving appropriateness, efficiency and minimising low value care. At a fundamental level the health system of the future needs to be designed to deliver the right care, in the right place, at the right time.

IHPA's role in developing a new classification is to ensure that it has the capacity to take account of structural and technological changes, and does not act as an impediment to funding and delivering high quality care.

3.1   Health system trends

The last decade in Australia has been characterised by a strong focus on improving efficiency in hospital care, including through the reduction in hospital length of stay which has been decreasing steadily, and an increase in the percentage of inpatient activity managed on a same day basis. In addition, there has been increasing attention on improving safety and quality in hospitals and a maturing of performance management frameworks to provide a better balance between financial and clinical care performance.

As hospitals and health system managers drive improved efficiency, the boundaries between the traditional care silos of admitted acute, non-admitted, subacute and primary care are being questioned and tested. Strategies to reduce length of stay and waste in the system focus on streamlining processes to eliminate any activities that do not add value to patient care. This has led to a number of practices including:

- rehabilitation in-reach to acute care programs
- increasing day only models
- expanding criteria for ambulatory care moving admitted to non-admitted care
- Hospital in the Home (HITH) services.

Care which has traditionally been provided in the admitted setting is increasingly delivered through non-admitted services for example day procedures such as cataract extraction or radiotherapy.

Local Health Networks (LHNs) are redesigning their community health services, changing their goals and function to better manage the acute hospital community interface. HITH are becoming business as usual however challenges remain in true primary and specialist care integration to manage complex patient health needs outside hospital walls.

There has been an increasing trend to evaluate the effectiveness of care delivery and disincentivise the provision of "low value care". There is an ongoing need to ensure that the health care delivered ensures the desired results and thus improves patient outcomes.

In designing a new classification for non-admitted care services, IHPA is considering these trends and the shifts of activity between the admitted, non-admitted and primary care sectors. The first version of the classification will include a list of intervention-type variables reflecting current and future models of care. The list will be developed in close consultation with non-admitted care specialists and clinicians.

3.1.1 Primary care boundaries with public hospital services

Historically there has been a divide between acute hospital and primary care services with interaction largely limited to referral and discharge communications. The exception to this is small general practitioner (GP)-led hospitals in rural and remote areas. In recent years the boundaries between acute hospital and primary care have changed in terms of the patients and types of treatment offered in the different settings. Services which have traditionally sat with hospital specialist services such as management of anticoagulation treatment for Deep Vein Thrombosis or Pulmonary Embolism, may be safely transferred to a GP with support if needed from medical specialists. These trends underline the importance of ensuring that classification systems do not create a barrier for innovation or create artificial provider-centric boundaries.

Other strategies to improve access to care have been the integration of preventative medicine with acute care, for example musculoskeletal clinics to manage obesity prior to elective surgery listing for joint replacement surgery. In addition, maternity care models are also bridging the divide between acute and primary care with inter-professional teams, midwife management with obstetrician and GP support for low risk births.

Models that may be found in managed care organisations and healthcare hubs offer integrated primary and specialist services working as a team. Patients are triaged and risk-stratified to the most appropriate health care professional. Managed care models are most often suitable for the management of people with chronic diseases including diabetes and respiratory disease. The models require common healthcare records, shared models of care, care coordination and referral and funding systems that allow flexibility to direct patients to deliver the right level of care and the right provider.

Managed care models provide many opportunities for improvements in care but they also provide challenges for data and classification systems which remain focused on traditional care settings.

The new classification will need to encompass these new models and should not create a barrier for innovation. In addition, IHPA will aim to align terminology with other classifications so patient care can be managed across settings.

3.1.2 Chronic disease models

There is increasing understanding by health care providers and policy makers of the systems that are required to improve care for patients with chronic disease and complex needs. Some of the best practice models show the following common characteristics:

- There is a process to identify patients with chronic and complex health needs who are at risk of poor outcomes

- Care coordination is high priority as patients receive treatment from a wide range of providers. One person is responsible for coordinating care.

- There is support for patients and care givers to manage their own health needs and access respite care

- There is consideration of the role of care givers in the management of these patients and the requirement for their participation in patient communication

- One integrated medical record that is shared with the whole healthcare team across primary, acute and subacute care

- Payments systems are designed to reduce barriers to care coordination, collaboration, adequately compensate for the complexity of cases treated, incentivise hospitals to work with community providers and exclude fee for service payment mechanisms.[2][3]

The Health Care Homes initiative is one model seeking to redesign care for people with chronic disease. Part of the Australian Government's Health Medicare reform package, the Health Care Homes model is trialling a capitated local governance model designed to support integrated care teams and move away from the doctor throughput models of the existing fee-for-service system. The program targets people with chronic disease and features voluntary patient enrolment with a GP practice or health care provider. The team-based integrated care model spans across all acute and primary care sectors with shared information and evidenced-based pathways tailored to the individual patient needs. The care is recorded using the My Health Record for data collection and sharing to measure health outcomes and improve performance (see section 3.2.1 for more information on My Health Record).

A bundled payment is made monthly to the practice based on three tiers of patient complexity and need. All services associated with the patient's chronic conditions are funded through the bundled payment with fee-for service billing available for episodic care (not associated with their chronic conditions).[4][5]

Other innovative Australian models of care in chronic disease management include acute inpatient teams outreaching to communities to support chronic disease patients with a self-management plan. These models provide subspecialty medical, nursing and allied health expertise in a format that can respond to medical "emergencies" in a setting other than the emergency department (ED) or inpatient ward. These programs will often include telephone support (clinician or patient initiated) and outpatient clinic visits where diagnostic parameters fall outside limits agreed in pathways. They effectively support the generalist skills of the GP and primary care team while extending specialist expertise for emergent medical issues beyond the hospital walls.

In addition, some state and territory governments are developing new funding models for selected patient groups to drive the adoption of patient-centred models of care. In particular, separate funding models are in place for patients with chronic disease due to their frequency of admission to hospital and evidence that they would benefit from more integrated health service delivery allowing them to be treated in a community setting.

For example, the Victorian HealthLinks: Chronic Care Pilot Program uses a capitation payment model to direct funding programs in the community for chronic care patients at high risk of hospital admission, to avoid these admissions, and presentations to emergency departments.

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[2] The Commonwealth Fund, (2017) Designing a High-Performing Health Care System for Patients with Complex Needs: Ten Recommendations for Policymakers Accessed 5 February 2017 http://www.commonwealthfund.org/publications/other/2017/ten-recommendations

[3] Wagner EH, et al (2001) Improving chronic illness care: translating evidence into action. Health Aff (Millwood);20:64-78

[4] Department of Health, Health Care Homes Accessed 14 February 2017 http://www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2016-ley024.htm

[5] Report to Government on the Findings of the Primary Health Care Advisory Group (2015) Better Outcomes for people with Chronic and Complex Health Conditions

Under such a funding model, the amount of funding per patient usually reflects the existing cost of delivering hospital services to these patients and allows health services the flexibility to use the funding in primary and community services to reduce total per patient expenditure over time.

IHPA acknowledges that the future classification should identify chronic care patients to allow for research and consideration of a range of treatment and funding models.

In developing an approach for classifying non-admitted patients, IHPA recognises that some emerging funding models, such as capitation funding, provide a single risk-adjusted prospective funding amount per patient for a fixed period of time, which is in contrast with ABF that ties funding to the volume and type of services provided. IHPA is currently investigating how these emerging funding models can be incorporated into an ABF environment as such approaches might offer improved efficiency and health outcomes for patients as health services will be incentivised to more routinely identify 'at risk' patients and deliver a more active management approach reducing the need for admitted services.

The ANACC system will take into account these developments and will be informed by the feedback received on the *Pricing Framework Consultation Paper 2018-19.*

3.2   Digital transformation

Digital transformation, particularly e-health, is an important practice to consider in the development of classifications. Advancements in technology impact both service delivery and data collection, creating efficiencies and fluidity in the provision of care. Furthermore, the capacity to house and process massive amounts of data provides the opportunity to use information in new ways for health care delivery.

The development of a classification system is dependent on high quality clinical, activity and financial data at the patient service event level and a clear statement of purpose. A lack of quality costing data for non-admitted patients has historically prohibited any non-admitted classification development to occur for the purposes of ABF. The digital transformation including the transition to eMR will create new opportunities for the capture of non-admitted care data. The ANACC system will need to be able to adapt to these advances.

Technology and the digital health infrastructure have a number of important functions within the broader health system:

- Decision support functionality and knowledge databases to support clinicians in their practice

- As an enabler of service integration, electronic referral, sharing clinical information and evidence based treatment pathways between providers across sectors professions and disciplines

- To support safety and quality improvement through evidence based care pathways and models of care

- To enable measurement of service process and health outcomes

- As an information deliverer to build patients, families and their carers knowledge and to enable self-management of their health

- Digital clinical monitoring and communication between patients in the community and their healthcare team

- Measuring and reporting service activity for benchmarking and funding purposes.

In the non-admitted care setting there has been considerable increase in use of digital health technology, ranging from the use of mobile applications in the management of cardiac rehabilitation, insulin stabilisation in diabetes, and self-management of chronic obstructive pulmonary disease, to telehealth services for stroke, wounds, emergency care, physiotherapy, and diabetic retinopathy.

The terms Electronic Medical Record (EMR), Electronic Health Record (EHR) and Personal Health Record (PHR) are often used interchangeably as each of these health records can contain similar information. However, each record type differs in terms of interoperability, record custodian and whether they engage individuals.

- EMRs contain health-related information that is created and managed by authorised clinicians within a single healthcare organisation. EMRs cannot be electronically shared electronically beyond the managing organisation.
- EHRs contain health-related information that can be created, managed and accessed by authorised clinicians across multiple healthcare organisations. EHRs are tools for healthcare providers.
- PHRs contain health-related information that can be created by multiple sources and is controlled by the individual owner of the record. PHRs are tools for individuals.

The Systemised Nomenclature of Medicine – Clinical Terms – Australia (SNOMED CT-AU) is the Australian extension of SNOMED CT, a comprehensive multilingual health terminology. SNOMED CT is designed to underpin clinical data recording and meaning-based retrieval and use. SNOMED includes more than 350,000 active concepts with unique meanings and formal logic based definitions, organised in hierarchies with multiple levels of granularity. The hierarchies include: clinical findings, procedures, observables, body structures, organisms, substances and pharmaceutical/biologic products.

Australian Medicines Terminology (AMT) is the national terminology that delivers unique codes to unambiguously identify originator and generic brands of medicines commonly used in Australia. The AMT is a subset of SNOMED CT-AU. AMT was developed to support electronic medication management, including the following activities:

- Prescribe
- Record
- Review
- Issue including dispense
- Administer
- Transfer of information

3.2.1   Electronic health records (eHR)

There is significant variation in the maturity of electronic health records across Australia between sectors, between and within jurisdictions and organisations. An eHR with all clinical information in digital format is still rare.

The progressive implementation of an eHR will facilitate the collection of patient data and will allow for links to be established between different episodes of care across admitted, non-admitted and subacute phases. eHRs have made communication with primary care easier with automated reminders and functions to decrease errors of omission such as not communicating admission or discharge information to GPs and other community service providers.

Electronic health information is also becoming available to patients themselves. My Health Record, is a national platform that provides secure online access to a person's health information. My Health Record allows individuals to enter their own health notes and advanced care information. Individuals are also able to control which documents in their record are visible to healthcare providers. A range of healthcare provider organisations including public hospitals, general practices, pharmacies, and aged care providers are linked to the My Health Record system. A wide range of health information can be held within My Health Record including medication summaries, prescription records, dispense records, health summaries, discharge records as well as pathology and diagnostic testing results.

Centralising patient medical information in an electronic medical record will provide significant opportunities for the future non-admitted care classification as the information recorded would span different settings. The future ANACC will be implemented at a time where the information is increasingly captured electronically and where patients are able to record and keep their information in a national repository. The terminology used and its comparability across different classification systems will be a key consideration in the development of ANACC.

IHPA recently foreshadowed in the *Pricing Framework for Australian Public Hospital Services 2018-19* that it will work with jurisdictions, national data committees, the Commonwealth and the Australian Digital Health Agency to consider the appropriateness of introducing the Individual Healthcare Identifier in national data sets. The Individual Healthcare Identifier is an existing person identifier which can provide a rich data set across settings of hospital and primary care in future years. Currently, all Australians with a Medicare number have the identifier which underpins the My Health Record program administered by the Australian Digital Health Agency. The single patient identifier will facilitate the accurate identification of service delivery to patients across settings of care, financial years and hospital establishments, and will support the introduction of innovative funding models and better understanding of service delivery trends.

3.2.2 Patient information systems

Although there is a drive to move care out of an inpatient setting, generally information systems are lagging behind this change. In most non-admitted settings, activity is captured through ageing appointment systems, with a reliance on paper-based medical records. Patient information may be disseminated across multiple information systems. Significant variability in e-referral and information systems exists across jurisdictions, within jurisdictions and even within individual hospitals.

Another challenge in the capture of non-admitted care data is the absence of a dedicated coding workforce. IHPA acknowledges that the information to be captured for the purpose of classifying non-admitted care should not require a separate coding workforce and will need to occur using existing capabilities.

The non-admitted care landscape is evolving rapidly, yet information systems capturing the broad scope of non-admitted care data are in their infancy. There are examples of condition-specific information systems in areas such as cancer services or transplantation centres that are more advanced, offering an Electronic Medical Record (eMR) that captures admitted and non-admitted information about the patient. However, these represent a small percentage of the existing non-admitted activity.

IHPA recognises that developing and implementing a new classification for non-admitted care services is a significant departure from the current provider-centric classification and will require an adequate implementation period for states and territories.

As more hospital-based clinical records become electronic many of the current constraints around data capture in the non-admitted setting will diminish. Identification and reporting of the main diagnosis or intervention will most likely occur via clinicians entering data directly into an

information system or through a clinician completing a paper form which is later input into an information system by an administrative officer. Voice recognition software may provide other options to manual data entry.

3.2.3   Health System innovation

The delivery of patient services in the current health system remains provider dependent, and is defined as a "face to face" interaction. In new models of care, the use of digital technology and decision support, and the declining availability of heath care professionals is resulting in new care models that rely on technology and innovations in patient devices and equipment. Examples of this include remote monitoring without "face to face" interactions with health care providers.

The development of telehealth and home monitoring technology has allowed a fundamental change to the face-to-face patient clinician consultations, once considered the gold standard. Examples include Skype or Videolink consultations occurring in primary care and hospital settings, for rural and remote areas as well as urban. Home monitoring studies are starting to demonstrate reduced mortality for chronic disease management. In Queensland, NetHealth have developed a software platform called HealthData which can integrate quantified self-data (e.g. vital signs) from various self-tracking sources (e.g. Fitbit®, glucometers, oximeters), and may also link it to medical records.

The NSW Integrated Care Program includes innovation grants for models to roll out innovative care models including home monitoring – some of which rely on simple vital signs monitors and mobile phone communication.

Understanding and acknowledgement of these changes needs to be carefully considered in the establishment of ANACC, to ensure these services are recognised and accurately funded within the classification.

Consultation questions

1. Should the new classification for non-admitted care support the delivery of integrated care between health care settings? If yes, how?

2. Should the new classification for non-admitted care services account for and adapt to newer models of care and technology? If yes, how?

3. As the type of care delivered in admitted, non-admitted and primary care are challenged, how can the future ANACC system account for these changes?

4. Creating an appropriate non-admitted care classification

In developing the ANACC system, IHPA needs to account for trends in e-health and the expected landscape in ten years' time with advances in the use of electronic medical records and developments in health terminologies such as the growing use of SNOMED across disciplines.

The new classification needs to take advantage of these advances and be relevant to them, as well as have longevity, with updates required over the years rather than whole scale revisions. As such, classification development will need to be informed by the opportunities of the future landscape, rather than restricted by current reporting requirements and limitations.

4.1   Classification principles

IHPA has developed a set of general classification principles to guide classification development and refinement across all care streams. IHPA will apply these principles in developing the ANACC system:

Comprehensive, mutually exclusive and consistent

- The classification is comprehensive, with all possible cases (episodes) within the scope of the classification able to be grouped to a class

- Should be able to be applied to all non-admitted care services in scope of ABF and perform similarly (clinically and statistically) when applied to different models and / or settings of care

- Classes within the classification are mutually exclusive, with every case (episode) in scope able to be grouped to a single class

- Class definitions and assignment to classes are clear, consistent and unambiguous.

Clinical meaning

- The underlying data elements are useful for clinical management purposes in addition to funding purposes should group patients with similar clinical and other characteristics and / or requiring similar treatment

- The data element makes sense to clinicians, and aligns with the language used by clinicians for clinical management of their patients.

Resource use homogeneity

- Events (episodes) should be assigned to classes with similar levels of resource use

- Estimates of resource use within classes should be stable over time

- When applied prospectively, the classification should explain a substantial level of the cost variation between classes, while minimising the variability of costs within each class

- When assessing an individual data element for its inclusion in the classification, there is strong evidence that the data element explains variation in costs over and above other cost drivers.

Patient-based

- Should be based on data elements that reflect the characteristic of patients, rather than characteristics of the service provider or inputs to care

- Classification should be able to be applied consistently across different settings.

Simple and transparent

- The classification has as many classes as are needed for its purpose and no more

- Assignment of cases to classes should occur through a process that is transparent and able to be understood by clinicians and health service managers.

Minimising undesirable and inadvertent consequences

- The classification relies on data elements that are collected consistently and uniformly

- The classification minimises the reliance on data elements that are open to local interpretation and / or provide incentives to change reporting to optimise funding

- The classification should minimise susceptibility to gaming, inappropriate rewards and perverse incentives

- The underlying data contributing to the classification are able to be audited.

Capacity for improvement

- The classification and the underlying data elements should provide information of sufficient granularity to facilitate improvement in the classification over time, for example, to reflect changes in practice patterns and technological advances, and to incorporate emerging knowledge about cost drivers

- The system should be sufficiently flexible to adapt to such change without requiring major restructuring.

Utility beyond ABF

- The classification and the underlying data elements should allow the analysis of best practice and facilitate benchmarking

- The data elements required for the classification are useful for purposes other than funding. These may include health services management, monitoring of quality and safety, epidemiological monitoring, understanding practice and cost variation, health services planning and performance reporting.

Administrative and operational feasibility

- The benefits of the data collected for the classification outweigh the administrative cost and burden of collection

- The collection of data utilises approaches that assist with or are consistent with the implementation of the electronic health / medical record

- The cost to establish / purchase and maintain the classification system is balanced by the benefits that it offers, and is affordable to the health system relative to other priorities.

4.2   Key considerations in designing the ANACC system

Noting the health system trends (refer to Section 3) and intention to develop ANACC for clinical, research, policy and ABF purposes, the following considerations are proposed in developing the ANACC system:

- The ANACC system is being developed for use by hospital outpatient clinics, community-based clinics and services provided in patient's homes whether they are currently considered in-scope or out-of-scope for the purposes of ABF, noting that there are different classification systems used for each of those settings. The new classification will therefore need to be able to interact with other classification systems.

- Patients with chronic disease do not use health services in a linear fashion and management of patients with chronic conditions consists of multiple treatment types for multiple diseases at the same time.

- For the first iteration of the classification, the incorporation of some specialties will be dependent on limitations of the data available for analysis.

- All non-admitted care services will be classified within the ANACC system, including non-admitted subacute care. Specialised mental health care services (where the patient has a mental health care type) will be classified using the AMHCC.

- IHPA will not consider a 'fee-for-service' based classification model where services are unbundled and funded separately, as is the case in the current Tier 2 classification. Such funding models tend to create gaming incentives rather than focussing on efficient and effective service delivery.

- Based on the classification principles, the ANACC system should, where possible, be based on data elements that reflect the characteristics of patients rather than characteristics of the service provider or inputs to care to ensure the classification accumulates meaningful data that can be used for ABF and beyond.

4.3   Integration of the non-admitted care classification with other classifications

Noting that care is becoming more integrated across settings, the new non-admitted classification system needs to be able to interface with the other classification systems in play within the health system. This means the ANACC system will encompass services provided in patient's homes whether they are currently considered in scope or out of scope for the purposes of ABF.

In addition, patients may frequently move between settings, presenting a challenge for classification and funding. IHPA proposes some commonality in classification variables between settings will assist in delivering on classification principles and purpose. While non-admitted patients may move in and out of different care types they cannot be synchronously reported, providing a barrier for care integration. Variables that are used in other classifications include:

- **Admitted –** Hospital admissions use the AR-DRG classification based on diagnoses, interventions and other routinely collected data such as age.
- **Emergency care –** presentations to emergency care services use URGs or UDGs classification systems, based on visit type, triage category, diagnosis (URGs only) and disposition.

- **Sub-acute and non-acute –** AN-SNAP classifies episodes of subacute and non-acute patient care that are provided in inpatient, outpatient and community settings. Patients are classified on the basis of setting, care type, phase of care, assessment of functional impairments, age and other measures.
- **Mental health care –** the AMHCC classifies episodes of mental health that are provided in the admitted and community settings. Patients are classified on the phase of care, age, mental health legal status (admitted only), Health of the Nation Outcome Scale complexity, and the Life Skills Profile -16 complexity.
- **Primary care –** Commonwealth Medicare Benefits Schedule Items are used primarily for classification and funding which includes procedure information but no diagnosis. Where possible, ANACC terminology will be aligned with existing MBS terminology.

ANACC should support the potential to better align pricing incentives across settings for care pathways for some hospital services and provide greater room to develop innovative models of care, without being deterred by pricing models based around traditional care settings. Over 2016 and 2017 IHPA undertook a program of investigative work around bundled pricing. Bundled pricing involves determining a single price for an episode or a bundle of service interactions, which reflects the cost of care for treatment of a condition occurring across multiple episodes and settings. For example, bundled pricing would provide one bundled price for all of a patient's admitted and non-admitted care for a particular condition.

A precondition to introducing a bundled pricing approach is the ability to map the service delivery patterns across multiple episodes and settings of care. A bundled pricing approach could be achieved through the consistent use of a unique patient identifier (discussed in Section 3.2.1). For example, IHPA's investigative work focused on developing a bundled pricing approach for maternity care. Maternity care spans the non-admitted and admitted settings for nearly all patients, with some also requiring emergency care. Where possible, there should be alignment between ANACC and the national classification systems to allow for the mapping of patients across settings, and enable innovative funding models such as bundled pricing.

Consideration should also be given to the fundamentals of a population based classification that allows the grouping of all interventions for the population. Population classifications are gaining recognition in international jurisdictions to identify the clinical characteristics and resource requirements for the population.

Consultation questions

4. The classification principles have been designed to guide and support the development of the future classification, do you agree with these and/or are there other principles that should be considered in developing ANACC?

5. Proposed classification concepts and variables

A move away from the provider-based Tier 2 classification as the primary splitting variable for the classification opens the opportunity to revise all aspects of the unit of count. This includes introducing an episode of care unit of count and revising the current service event definition and counting rules to address elements that are not aligned to the new classification and ABF principles.

This section of the consultation paper proposes a set of variables to be included in the classification. Once variables are agreed, a classification hierarchy will be developed based on clinical advice and statistical analysis.

5.1   Unit of count / activity

5.1.1   Proposed approach for the ANACC unit of count

The unit of count is integral to any classification system. There is an opportunity to incorporate a revised system of counting into the new classification. The 2014 review of existing non-admitted patient care classification identified two units of count that are applicable to non-admitted care: [6]

- Service event: generally one patient attendance is classified as one unit of count.

- Episode of care: all care and treatment within a defined period of time is considered one unit of count.

Currently a *service event* is the unit of count used to measure healthcare services delivered to non-admitted patients by the public hospital system for ABF purposes. The current service event definition specifies four elements:

- the number of providers

- the patient's admission status

- the type or intent of the interaction

- documentation of the interaction.

A non-admitted patient service event is defined as:

> *".. an interaction between one or more health care provider(s) with one non-admitted patient, which must contain therapeutic/clinical content and result in a dated entry in the patient's medical record.*
>
> *The interaction may be for assessment, examination, consultation, treatment and/or education."[7]*

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[6] PwC. (2014). Review of Non-Admitted Classifications. Commissioned by the Independent Hospital Pricing Authority. Available at https://www.ihpa.gov.au/publications/review-non-admitted-classifications

[7] Independent Hospital Pricing Authority, (2015). Tier 2 Non-Admitted Services Compendium 2016-17. Available at https://www.ihpa.gov.au/publications/tier-2-non-admitted-services-compendium-2016-17

Service events may be classified and counted at the most granular level or bundled together based on a series of business rules. Under the Tier 2 classification for ABF purposes, diagnostic clinics (30 series) are not counted as service events and are instead bundled to associated 10, 20 and 40 series service events. Temporal care bundled price weights for Home Enteral Nutrition, Total Parenteral Nutrition, home-delivered dialysis and home ventilation were introduced in the 2015-16 National Efficient Price (NEP) with one month of non-admitted care in these classes counted as one service event.

Some activity can be reported as a service event even if not meeting the service event definition. Multidisciplinary case conferences where the patient is not present do not meet the service event definition, although there is a clear exception rule in the national data collections allowing it to be reported. There is strong clinical support that multidisciplinary case conferences are an important part of the care provided in non-admitted care settings.

There is a high level of interest in the introduction of an episode based unit of count into the ANACC. Identified benefits of an episode based unit of count include:

- better reflects the patient experience for many conditions
- may be preferred by clinicians as resources and funding are easier to manage with less administrative burden on the clinical team
- more resource homogeneous than service events
- better able to drive efficiency in the longer term and encourage clinicians to take a long term view of good practice care for their patients
- less likely than service events to encourage 'over servicing'.

Use of an episode of care unit of count may have greater applicability for some types of non-admitted care such as:

- Where there is a diagnosis of chronic or persistent conditions:
    - allows innovations in service delivery and models of care rather than creating an incentive to count more activity
    - Australian Institute of Health and Welfare chronic conditions list could be used to identify classes appropriate for longer episodes of care
- Cases with a frequent number of service events over a defined period of time, such as palliative care or rehabilitation care
- A period of aftercare subsequent to an inpatient admission
- Procedures or services with a set protocol of treatment or pathway such as cancer care, chemotherapy or radiation oncology
- Some types of non-admitted care which is provided by integrated multidisciplinary care where larger number of inputs go into service delivery, such as post organ transplantation.

International non-admitted classifications used for funding have predetermined time period episodes. For example the Irish Tier 2 system uses a period of 28 days to bundle non-admitted services post inpatient admission. While length of stay is a cost driver for admitted patients this is not the case for non-admitted episodes where the number of services or the time per service event drive cost rather than the length of time of the episode.

Key limitations and challenges in using a time-based episode as a unit of count include:

- Introduction in the early phases of development and maturation of the classification will lose data granularity which will in turn:
  - undermine classification development
  - reduce the resource homogeneity of the developing classes
  - inhibit robust benchmarking
- Added complexity to data collection and reporting particularly if both service event and episode counts are used with
  - further work required to identify the types of care for which it would be appropriate
  - potential requirement for two levels of bundling, the first to service event and the second to episode of care.
- Episode start and end points are less clear than for other care types
- Little understanding of variation in episode length and resource usage within a non-admitted class due to the poor quality of non-admitted patient level data and limitations in the ability to link patients across data submissions
- Many health services and jurisdictions are undergoing significant change in processes and IT systems.

As indicated by the evidence above, it may be premature to introduce a time-based episode unit of count for non-admitted care. However, other options could be considered such as clustering service events into meaningful groups associated with treatment of the condition. This could work in collaboration with the bundled pricing program of work (as discussed in Section 4.3), and could build on the current unit of count of the national data collections.

IHPA proposes that the first version of the ANACC system continues to use service event as the basic unit of count for the purposes of data collection to allow time for patient-level data collection under the new classification. However, a revision of the current service event definition is required to address elements that are not aligned to the new classification and ABF principles.

5.1.2 Proposed revised service event definition

IHPA proposes the following revised service event definition:

A non-admitted patient service event is defined as:

> *".. an interaction between one or more health care provider(s) with one non-admitted patient, which must contain therapeutic/clinical content and result in a dated entry in the patient's medical record.*

The interaction may:

- *be for assessment, examination, consultation, treatment and/or education*
- *be provided on behalf of the patient during a non-admitted multidisciplinary case conference (MDCC) where the patient is not present*
- *be provided by the patient in their own environment without the presence of a healthcare provider."*

The advantage of this approach is to limit the amount of change for health services and jurisdictions while still ensuring data collection remains at a relatively granular level. It also ensures there is flexibility for changes in future funding models, such as bundled pricing or population-based models. As patient-level data under the new classification becomes available,

classes that routinely involve multiple service interactions over multiple days may be identified and transitioned to an episode of care unit of count.

Consultation questions

5. Should IHPA continue to use service event as the ANACC unit of count? If yes, do you agree with the proposed revised definition of a service event? How could it be improved?

6. Should an episode be considered as a unit of count in the new ANACC? If not for all conditions, then for which specific conditions?

5.2 Diagnosis-type and intervention-type variables

In consulting with stakeholders, a majority expressed a preference for a patient-level classification system. Stakeholders reported that such a classification would:

- build the ability to track patient journeys across service settings and eventually health sectors to inform research, policy and funding

- create transparency around the type of interaction in outpatient clinics

- reflect patient complexity and associated resource use.

Stakeholders did report that such large changes in the way of classifying non-admitted services, whilst desirable, would cause significant burden on health services collecting and reporting non-admitted data. IHPA acknowledges that diagnosis-type data is not routinely collected in the sector but notes the current digital transformation (e.g. eMRs) will certainly provide an opportunity in the future for health services to use the information collected for reporting purposes.

5.2.1 Data analysis to inform future variables

IHPA undertook a review of existing data to determine potential cost drivers and inform an initial list of variables to be used for the future classification.

The data used for the analysis was primarily the data collection undertaken in 2013 for the *Non-Admitted and Subacute Admitted Costing Study* which was refined in 2015 as part of the *Coding of Diagnoses and Procedures* study. The datasets used reflect the period 1 June 2013 to 30 November 2013. The Non-Admitted and Subacute Costing Study data were compared with the 2013-14 National Hospital Cost Data Collection (NHCDC) to assess how reflective the costing study data set was of the overall non-admitted cost data population. *The Non-Admitted and Subacute Costing Study* was selected as the dataset contained coded diagnosis and procedure data as well as service information, provider details and time.

The variables used in the analysis included clinic, diagnosis, procedure, gender, age, location of visit, reason for visit, support for visit and multidisciplinary.

The data analysis report provided the following findings:

- The results showed a strong association between certain clinic types and the corresponding diagnosis, illustrating that in certain areas of care, the patient's diagnosis reflects the services received. For example 38.9% of service events from Clinic 20.17 – Ophthalmology were within the Diagnosis Chapter 07: Eye and Adnexa.

- Across the majority of clinics, there was a small sample of service events that were spread across a wide range of diagnoses chapters with varying costs, highlighting potential scope to refine the non-admitted classification using diagnosis information.

- Across the majority of clinics examined, there was a large portion of service events with missing diagnosis information. If missing information reflects the difficulty of collecting diagnostic information within this form of care, a candidate classification system should allow for incomplete diagnosis data in the early stages of development.

- Among the pregnancy services (20.40 and 40.28) only a small portion of services were captured within Diagnosis Chapter 15: Pregnancy. The finding may reflect the way the diagnosis and procedure information was collected during the costing study.

- Non-admitted care is primarily focused around a specific number of diagnosis chapters in the ICD-10-AM. Four diagnosis chapters capture 65.5% of the costing study activity. Therefore a candidate classification system that adopts diagnosis may only need to include a selected scope of diagnosis instead of the entire range.

- Other patient characteristics could be incorporated together with diagnosis. For example, neoplasm paediatrics service events are on average 85% more expensive than the adult cohort, with both cohorts currently treated within the same Tier 2 clinic.

- It was found that 22% of service events had a valid procedure recorded which may reflect the way the diagnosis and procedure information was collected during the costing study.

- Just over 70% of service events with a valid procedure were recorded under Chapter 19: Non-invasive, cognitive and other interventions in ACHI. A candidate classification system that adopts procedures may only need to include a selected scope of procedures instead of the entire range.

- Age alone does not present as a driving factor for resource consumption yet there were prominent cost discrepancies with age in conjunction with some diagnosis profiles.

- The data illustrated that there was a clear trend between resource consumption and a service event's multidisciplinary status, therefore its inclusion as a variable is a viable option within the candidate classification systems.

5.2.2 Diagnosis-type

If the long-term vision of ANACC is to be a patient-based classification system as opposed to the current clinic-based classification, the first variable should reflect the main reason for the patient to receive a non-admitted care service.

Such a variable would fall within the category of a 'diagnosis-type' variable and could include:

- **diagnosis** – further reinforced by the findings of the data analysis that across the majority of clinics, service events were spread across a wide range of diagnoses chapters with varying costs.

  Inclusion of diagnosis creates comparability across classifications and settings to enable future development of classification and funding models at the patient population level, rather than building a system which compartmentalises care according to setting.

  Notwithstanding the limitations of the data, four diagnosis chapters were found to capture just over 65% of the service events. For the non-admitted care setting, grouping and/or selecting certain diagnosis might be more appropriate.

  Stakeholders have expressed concerns that, with the increasing involvement of non-medical providers (e.g. allied health professionals), the main reason for attendance of a patient may not always be linked to the patient's primary diagnosis.

- **reason for encounter** – a patient's reason for encounter (RfE) can reflect the patient's demand for care and can provide an indication of service use patterns.[8] RfEs can be expressed as symptoms (e.g. 'itchy skin', 'back pain'), diagnosis (e.g. 'about my diabetes', 'for my hypertension'), a request for a service ('I need more scripts', 'I want a referral'), or a need for a check-up.[9] The RfE is defined as the reasons given by the patient before the physician or other health worker makes any judgement as to their validity or accuracy, or before a diagnosis is made.[10]

- **presenting problem (preferred)** – previous research has suggested that presenting problem may be a more important predictor of costs than principal diagnosis as it may utilise a similar level of resources for the diagnostic component of an episode. It was acknowledged that once a particular diagnosis had been established, treatment pathways will diverge, and consequently, costs will vary.[11] However, the literature on the extent to which presenting problems explain variation in cost is limited and equivocal.[14]

IHPA proposes to use 'presenting problem' as a diagnosis-type variable as it best captures the reason the patient is receiving the non-admitted service. Feedback from clinicians and non-admitted care stakeholders is also that many patients may not have a known diagnosis when attending a non-admitted service therefore a variable of 'diagnosis' may not be adequate for the non-admitted sector. There are also cohorts of patients with chronic conditions receiving services for an exacerbation of a symptom or problem rather than the underlying diagnosis.

Some patients may also present with multiple conditions for 'administrative' reasons such as a pharmacy consultation prior to or post admission to a hospital. The new ANACC should ensure that the most common types of patient encounters are accounted for and reflect the reason the patient attended.

Presenting problem could be defined as "the problem that the patient presents with to the non-admitted service, as determined by the clinician first assessing the patient". Further guidance and business rules will be developed to guide the recording of this information.

5.2.3   Intervention-type variables

The analysis of the non-admitted data (refer to section 5.2.1), showed that there was a clear link between the type of procedure and resource consumption, indicating some interventions define the cost. In addition, there are a growing number of interventions which were previously required for a patient to be admitted (e.g. dialysis) are now performed either at a non-admitted clinic or in the patient's home. The future ANACC must factor these care patterns and incorporate 'intervention' data in order to identify a patient from an admitted setting to a non-admitted setting.

IHPA proposes to use the following WHO definition of a health intervention:

"A health intervention is an act performed for, with or on behalf of a person or population whose purpose is to assess, improve, maintain, promote or modify health, functioning or health conditions.[12]"

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[8] Britt H, et al. (2016). General practice activity in Australia 2015–16. General practice series no. 40. Sydney: Sydney University Press, 2016.

[9] Ibid, 16.

[10] Lamberts H, et al. (1985) Results of the International Field Trial with the Reason for Encounter Classification. Medecine sociale et preventive; 30:80-87.

[11] Independent Hospital Pricing Authority (2014). Investigative review of classification systems for emergency care. Available at https://www.ihpa.gov.au/publications/investigative-review-classification-systems-emergency-care

[12] World Health Organisation (2016). International Classification of Health Interventions (ICHI). Available at http://www.who.int/classifications/ichi/en/

5.2.4 Principles for determining initial presenting problem/diagnosis-type and intervention-type groups

Jurisdictions have expressed that they currently do not collect diagnosis-type and intervention-type variables in outpatient settings. The scope of the ANACC data collection will need consider collecting and reporting capabilities around the country. The initial variables in the ANACC will be in the form of a shortlist of patient-level presenting problem/diagnosis-type and intervention-type grouping variables to allow for a smooth transition in the first years.

Over time, the list will be refined to a more detailed collection of data. Jurisdictions will therefore have a significant implementation period to adapt and transition their respective patient administration systems onto a more granular reporting system depending on their capabilities.

An initial list of proposed groupings for the ANACC system is at Appendix A. The list has been largely informed by the structures used in major categories and subdivisions within the Australian Refined – Diagnosis Related Groups Classification (AR-DRG), Version 8.0, where the major breakdown is based on a body system or aetiology associated with a particular clinical specialty, for example, Diseases and Disorders of the Kidney and Urinary Tract or Pregnancy, Childbirth and the Puerperium. The ANACC draft groupings loosely follow the subdivisions within the medical partition as they are based on diagnosis. The objective was to create a set of groups which were comprehensive and meaningful, yet manageable in size to facilitate the collection and reporting of patient data in the non-admitted setting.

IHPA is seeking views from clinical and non-admitted care stakeholders as to whether the proposed initial list of groupings adequately reflect all presenting problems that may be encountered in the non-admitted care sector.

In consultation with IHPA's clinical advisors, the following specific principles were followed with regards to the presenting problem/diagnosis-type groups:

- Trauma or neoplasms specific to an organ (e.g. eye), were retained in specific body system (specialty based) groups, while those not specific to an organ, were generally assigned to more generic groupings.

- Similarly, organ specific autoimmune diseases were grouped to body system (specialty based) groups while systemic autoimmune diseases were generally grouped to the more generic 'autoimmune diseases' group.

Interventions were informed by procedures currently specified within the 10 series of the Tier 2 Non-Admitted Services classification, procedures within ADRGs noted in the National Efficient Price Determination to have significant number of same-day episodes, advice from IHPA's clinical advisors and anecdotal evidence of procedures able to be performed routinely within the non-admitted setting.

The proposed initial presenting problem/diagnosis-type and intervention groups were further refined based on input from the Clinical Advisor and the Specialist Non-Admitted Advisor on the ANACC project.

5.3 Complexity variables

Jurisdictions and other relevant non-admitted care stakeholders have broadly welcomed the opportunities that a new classification would provide to better describe patient complexity and more accurately reflect the costs of non-admitted care, with peak bodies arguing that improved recognition of multi-disciplinary care is important. There has been strong support amongst clinicians for a classification which has a broader scope than IHPA's pricing remit and captures the whole patient journey.

A consistent view is that the long-term non-admitted care classification needs to account for the increasing complexity of patients seen in the non-admitted setting, particularly patients with chronic conditions, multiple comorbidities and complex psychosocial situations, with many patients receiving intensive multidisciplinary management from a number of health care providers. In addition, a range of stakeholders contend that the new classification needs to be flexible to account for and adapt to newer models of care and technology, and encourage the delivery of integrated care between health care settings, in particular between the admitted and non-admitted settings, with consideration of integration of care provided by primary care providers.

Better identifying complexity in the non-admitted sector will also support the current program of work on safety and quality with the implementation of a pricing approach for hospital acquired complications from 1 July 2018 (further detailed in the *Pricing Framework Consultation Paper 2018-19*).

The complexity variables to be included in the first version of the ANACC system may include:

- Age

Age can be defined as the number of years a person has lived. Age is an essential variable in a wide range of social, labour, and demographic statistics.[13] While age alone did not appear to be a driving factor for resource consumption in the non-admitted setting, there were important cost discrepancies with age in the interaction with other patient profiles (e.g. paediatric and adult). Moreover, age is commonly collected in patient administration systems, medical records, and digital wearable technologies. Therefore, age may be a classification variable for some diagnoses or classes.

- Comorbidities

Comorbidity is the presence of one or more diseases or disorders concurrent with a primary disease or disorder. There is significant evidence in the literature that demand for treatment provision increases with comorbid patient groups.[14] Patients with chronic conditions, multiple comorbidities, and complex psychosocial situations are likely to return for multiple visits for the same diagnosis. As digital health care applications are increasingly used in chronic disease management, preventative care, rehabilitation, and geriatric care, the presence of comorbidities should be identified in the future ANACC system.

- Multidisciplinary

Multidisciplinary care occurs when professionals from a range of disciplines with different but complementary skills, knowledge and experience work together to deliver comprehensive healthcare aimed at providing the best possible outcome for the physical and psychosocial needs of a patient and their carers.[15] Multidisciplinary services may be a combination of medical, nursing, and allied health services. Furthermore, there is a clear trend between resource consumption and a service event's multidisciplinary status. These services are an important, and rapidly developing, feature of evidence-based care and treatment, and will be required in the ANACC system.

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[13] Australian Institute of Health and Welfare (2012). National Health Data Dictionary. Version 16 Cat. no. HWI 119. Canberra: AIHW. Available at http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=10737422824

[14] The Department of Health (2003). Impact of comorbidity on the course of illness and use of services. Available at http://www.health.gov.au/internet/publications/publishing.nsf/Content/drugtreat-pubs-comorbid-toc~drugtreat-pubs-comorbid-6~drugtreat-pubs-comorbid-6-2

[15] Mitchell GK et al. (2008). Multidisciplinary care planning and teamwork in primary care. Med J Aust 188(8):S61–4.

- New/repeat visit

A new visit is the initial presentation of a patient at a health service, and a repeat visit is subsequent visit at the same health service. Jurisdictions have been supportive of the inclusion of a new/repeat visit variable. In the data analysis conducted by IHPA (refer to section 5.2), the median cost of a new visit was slightly higher than a repeat visit.

- Providers

A health care provider is responsible for providing treatment to patients in a health service. For specific health care providers, there is a high correlation to corresponding diagnoses. This trend illustrates that in certain areas of care the patient's diagnosis reflects the services received and therefore is a viable option to indicate complexity.

Consultation questions

7. Non-admitted patients often present with multiple comorbidities, and may be treated under a chronic disease management model. Should the future ANACC system have a separate path for classifying chronic disease patients?

8. What implementation timeframe is required for jurisdictions to transition to a patient-based non-admitted care classification system?

9. What considerations should be made in relation to including a diagnosis-type variable in the future ANACC system?

10. Should presenting problem be used as the diagnosis type variable? If yes, do you agree with the proposed definition of 'presenting problem'?

11. What are your views on the proposed list of initial presenting problem/diagnosis-type and intervention-type groups presented at Appendix A? What refinements should be considered?

12. Do you agree with the list of complexity variables presented in Section 5.3? What other variables should be considered for the new ANACC system?

6. Next steps

IHPA will develop a report with recommendations based on feedback from stakeholders which will be shared with NACAWG in mid-2018. The next phase of ANACC will involve developing a classification structure, in collaboration with non-admitted care experts and clinicians, which will then be tested in a small sample of non-admitted Australian services in late 2018. Throughout the developmental phase, strong consideration will be given to reporting capabilities to ensure the first version of the ANAC system meets the sector's needs and is achievable.

IHPA anticipates the developmental work to be conducted in 2018-19 with further work to be undertaken with stakeholders to accurately describe and define the classification variables and business rules. The draft ANACC system version 1.0 will include a classification class and code list, class descriptions, data set specification, and business rules.

The first version of the ANACC system will be finalised by 2020.

6.1 Consultation submissions

Submissions should be sent as an accessible Word document to submissions.ihpa@ihpa.gov.au or posted to "Submissions" PO BOX 483 Darlinghurst NSW 1300. **Submissions close at 5pm on Friday 6 April 2018.**

All submissions will be published on IHPA's website unless respondents specifically identify sections that they believe should be kept confidential due to commercial or other reasons.

Appendix A: Proposed list of patient-level grouping variables for the ANACC system

MDC 01 Diseases and Disorders of the Nervous System	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Paraplegia and quadriplegia	• Carpal tunnel release
Other spinal cord condition	• Pain management procedures
Dementia, and other chronic disturbance of cerebellar function	• Plasmapheresis (autologous or allogeneic)
Delirium	
Cerebral palsy	
Neoplasm of nervous system	
- Extrapyramidal and movement disorders Parkinson's disease	
Multiple sclerosis and cerebellar ataxia	
Stroke or other cerebrovascular disorder	
- TIA and precerebral occlusion	
Cranial and peripheral nerve disorder	
Nervous system infection except viral meningitis	
Viral meningitis	
Epilepsy (seizures)	
Headaches and migraine	
Chronic pain	
Signs or symptoms of the nervous system	
Other disorder of the nervous system - narcolepsy - degenerative nervous system disorders except extrapyramidal and movements disorders	

MDC 02 Diseases and Disorders of the Eye	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Cataract	• Cataract extraction
Glaucoma	• Corneal grafting (keratoplasty)
Infection eye	

MDC 02 Diseases and Disorders of the Eye

Proposed presenting problem / diagnosis-type groupings	Proposed intervention-type groupings
- acute and major eye infections - inflammatory diseases of the eye	• Dacyrocystorhinostomy • Eyelid procedures (blepharoplasty) • Glaucoma procedures
Neoplasm of eye	• Lacrimal procedures
Injury/trauma to eye - penetrating eye injury - hyphaema	• Ophthalmic procedures for trauma • Pterygium removal • Refraction correction procedures • Retinal detachment procedures (simple repairs)
Neurological & vascular disorders of the eye	• Strabismus repair
Signs or symptoms of the eye	• Other eye procedures
Other disorder of the eye and adnexa - choroid - eyelid - lacrimal system - orbit - conjunctiva - cornea - lens, except cataract - ocular muscles - retina	

MDC 03 Diseases and Disorders of the Ear, Nose, Mouth and Throat

Proposed presenting problem / diagnosis-type groupings	Proposed intervention-type groupings
Dysequilibrium	• Dental extractions and restorations
Epistaxis	• Myringotomy with tube insertion
Hearing loss (conductive, sensorineural and other)	• Nasal procedures • Tonsillectomy and adenoidectomy
Laryngotracheitis or epiglottitis	• Upper airway endoscopy
Nasal trauma or deformity	• Other general dentistry (orthodontics, prosthodontics and periodontics)
Neoplasm of ear, nose mouth or throat	
Otitis media and upper respiratory infections	• Other ear, nose, mouth and throat procedures
Signs or symptoms of the ear, nose, mouth or throat	
Other disorder of the ear, nose, mouth or throat - voice disorders	

MDC 04 Diseases and Disorders of the Respiratory System

Proposed presenting problem / diagnosis-type groupings	Proposed intervention-type groupings
Cystic fibrosis	• Bronchoscopy - bronchial or bronchoalveolar lavage
Pulmonary embolism	- with dilatation
Respiratory tuberculosis	- fine needle aspiration (FNA)
Lower respiratory infection and inflammation	- removal foreign body
Sleep apnoea	• Invasive ventilatory support - tracheostomy
Pulmonary oedema and respiratory failure	• Noninvasive ventilatory support
Chronic obstructive airways disease	• Polysomnography (sleep study)
Pneumothorax	• Thoracoscopy
Bronchitis and asthma	

MDC 04 Diseases and Disorders of the Respiratory System	
Whooping cough and acute bronchiolitis	
Neoplasm of respiratory system	
Respiratory problems arising from neonatal period	
Interstitial lung disease	
Pleural effusion	
Signs or symptoms of the respiratory system	
Other disorder of the respiratory system	

MDC 05 Diseases and Disorders of the Circulatory System	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Acute myocardial infarction	• Cardioversion
Heart failure	• Implantation or replacement of pacemaker
Venous thrombosis	• Percutaneous coronary intervention
Peripheral vascular disorder with skin ulcer	• percutaneous transluminal coronary angioplasty (PTCA)
Peripheral vascular disorder without skin ulcer	• percutaneous transluminal rotational atherectomy
Coronary atherosclerosis	• Cardiac electrophysiological studies
Hypertension	• catheter ablation
Congenital heart disease	• Selective coronary angiography
Valvular disorder	• Transoesophageal echocardiogram (TOE)
Arrhythmia or conduction disorder	• Implantable ECG loop recorder
Neoplasm of the circulatory system	• Vein ligation and stripping
Signs or symptoms of the circulatory system	• Other circulatory system procedure
Other disorder of the circulatory system - chest pain - infective endocarditis - lymphoedema - syncope or collapse - unstable angina	

MDC 06 Diseases and Disorders of the Digestive System	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Neoplasm of gastrointestinal system (except hepatobiliary)	• Anal and stomal procedures • Gastrointestinal endoscopy
Gastrointestinal haemorrhage	- oesophagoscopy
Inflammatory bowel disease	- gastroscopy
Gastrointestinal obstruction	- colonoscopy
Abdominal pain or mesenteric adenitis	- duodenoscopy
Oesophagitis or gastroenteritis - Gastro-oesophageal reflux disease (GORD)	- sigmoidoscopy Hernia procedures
Signs or symptoms of the gastrointestinal system	
Other disorder of the digestive system - appendicitis - coeliac disease - peptic ulcer	

MDC 06 Diseases and Disorders of the Digestive System

- diverticulitis (without haemorrhage) - irritable bowel syndrome - disease of anus and rectum - hernia	

MDC 07 Diseases and Disorders of the Hepatobiliary System and Pancreas

Proposed presenting problem / diagnosis-type groupings	Proposed intervention-type groupings
Cirrhosis or alcoholic hepatitis	• ERCP procedures • Closed liver biopsy
Neoplasm of hepatobiliary system	
Disorder of biliary tract	
Other disorder of pancreas	
Other disorder of liver - viral hepatitis	
Signs or symptoms of the hepatobiliary system	

MDC 08 Diseases and Disorders of the Musculoskeletal System and Connective Tissue

Proposed presenting problem / diagnosis-type groupings	Proposed intervention-type groupings

Pathological fracture	• Orthopaedic endoscopy
	  - arthroscopy
	• Infusion for musculoskeletal disorder
	  - pain management procedures
	• Closed reduction
	  - general anaesthetic manipulation and plaster (GAMP)
	  - local anaesthetic manipulation and plaster (LAMP)
	• Repair or debridement of wound

Osteomyelitis	
Neoplasm of musculoskeletal system	
Inflammatory musculoskeletal disorder - rheumatoid arthritis - systemic lupus erythematosus	
Septic arthritis	
Spinal deformity	
Musculotendinous disorder	
Aftercare of musculoskeletal implant or prosthesis	
Signs or symptoms of the musculoskeletal system or connective tissue	
Other disorder of musculoskeletal system or connective tissue - bone disease or arthropathy	

MDC 09 Diseases and Disorders of the Skin, Subcutaneous Tissue and Breast

Proposed presenting problem / diagnosis-type groupings	Proposed intervention-type groupings
Neoplasm of skin	• Biopsy of skin • Debridement of skin • Excision of lesion of breast (lumpectomy) • Fine needle aspiration (FNA) breast • Skin cancer procedures • Wound management (dressings) - vacuum-assisted closure (VAC)
Skin ulcer - pressure injury	
Infection of skin (except post-traumatic) - abscess - cellulitis - inflammatory disorder of skin	
Signs or symptoms of skin, subcutaneous	

MDC 09 Diseases and Disorders of the Skin, Subcutaneous Tissue and Breast	
tissue or breast	dressings
Other disorder of breast - benign neoplasm	• Other minor skin procedures
Other disorder of skin - acne - benign neoplasm of skin - dermatitis (allergic) - psoriasis	

MDC 10 Endocrine, Nutritional and Metabolic Diseases and Disorders	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Diabetes mellitus	• Insertion of insulin pump
Nutritional deficiency	
Metabolic disorder - obesity	
Inborn errors of metabolism	
Neoplasm of endocrine system	
Thyroid disorder	
Signs or symptoms of endocrine, nutritional and metabolic system	
Other disorder of the endocrine system - adrenal disorder	

MDC 11 Diseases and Disorders of the Kidney and Urinary Tract	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Kidney failure	• Extracorporeal shock wave (ESW) lithotripsy

Neoplasm of kidney or urinary tract	• Renal dialysis
	  - haemodialysis
	  - peritoneal dialysis

- Infection of kidney or urinary tract abscess
- cystitis
- pyelonephritis
- urinary tract infection
	• Urinary incontinence treatment
	  - trial of void
	  - urethral dilation

Urinary calculus or obstruction	• Urodynamic studies
Urethral stricture	• Urological endoscopy - cystoscopy
Signs or symptoms of the urinary tract	- endoscopic insertion or removal of ureteric stent
Other disorder of the kidney or urinary tract	- retrograde pyeloscopy - ureteroscopy

MDC 12 Diseases and Disorders of the Male Reproductive System	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Neoplasm of male reproductive system - prostate	• Circumcision • Vasectomy
Other disorders of prostate	

MDC 12 Diseases and Disorders of the Male Reproductive System	
- benign prostatic hypertrophy	• Trans-urethral ultrasound, prostate
Infection or inflammation of male reproductive system	
Male reproductive management (sterilisation)	
Signs or symptoms of the male reproductive system	
Other disorder of the male reproductive system - benign neoplasm of male reproductive system - male infertility - undescended testis	

MDC 13 Diseases and Disorders of the Female Reproductive System	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Neoplasm of female reproductive system	• Destruction procedures on cervix - cautery - diathermy - large loop excision of transformation zone (LLETZ) - laser
Infection of female reproductive system - pelvic inflammatory disease	
Menstrual or other female reproductive system disorder - endometriosis - benign neoplasm of female reproductive system (polyps) - female infertility - female reproductive management - menstrual disorders	• Dilatation and curettage (D&C) • Gynaecological endoscopy - hysteroscopy - colposcopy • Procedures for assisted reproduction • Procedures for contraception
Signs or symptoms of the female reproductive system	
Other disorder of female reproductive system	

MDC 14 Pregnancy, Childbirth and the Puerperium	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Abortion and post abortion care	• Amniocentesis
Ectopic pregnancy	• Cardiotocography (CTG)
High risk (complex) pregnancy (antenatal and postnatal care) - abnormalities of the placenta, uterus, and cervix - alcohol use - autoimmune disease - cardiac disease - endocrine disorders (pre-existing diabetes mellitus, gestational diabetes mellitus, thyroid conditions) - haematological disease (anaemia, haemoglobinopathy) - HIV	• Chorionic villous sampling • Dilatation and curettage (D&C) • Minimally invasive fetal therapy

MDC 14 Pregnancy, Childbirth and the Puerperium	
- hypertensive disorders of pregnancy (eclampsia, gestational hypertension, HELLP syndrome, pre-existing hypertension) - malignant neoplasm - mental health disorder - multiple pregnancy - obesity - poor obstetric or reproductive history (history of abortive outcome, habitual aborter, previous fetal congenital anomaly) - renal disease - respiratory disease - rhesus isoimmunisation - social problems (complex) - substance use - thromboembolic disorder - viral hepatitis B or C	
Low risk pregnancy (antenatal and postnatal care)	
Other condition related to pregnancy, childbirth or the puerperium	

MDC 15 Newborns and Other Neonates	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Premature neonates with complications (<37 completed weeks gestation)	
Premature neonates without complications (<37 completed weeks gestation)	
Term neonates with complications (≥ 37 completed weeks gestation)	
Term neonates without complications (≥ 37 completed weeks gestation)	

MDC 16 Diseases and Disorders of the Blood and Blood Forming Organs and Immunological Disorders	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**

Red blood cell disorders
- anaemia
	• Administration of
	  - blood and blood products
	  - interferon

White blood cell disorders	
Immunodeficiency	
Coagulation disorders - thrombocytopenia	
Autoimmune disorders	
Hypersensitivity and allergic disorders	
Neoplasm of blood and blood forming organs	
Other haematological disorders	
Other immunological disorders	

MDC 17 Neoplastic Disorders (Haematological and Solid Neoplasms)	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**

Neoplasms of haematopoietic or lymphoid tissue
- leukaemia
- lymphoma
- myelodysplastic syndromes
- myeloproliferative neoplasms
 	
Other neoplastic disorders
	• Bone marrow biopsy
	• Bone marrow transplant
	• Chemotherapy
	• Hormonal treatment
	• Insertion venous access device
	  - peripherally inserted central catheter (PICC)
	  - portacath
	• Radiotherapy
	• Radiation therapy simulation, planning and dosimetry

MDC 18 Infectious and Parasitic Diseases	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Human immunodeficiency virus (HIV)	• Wound dressings • Infusions - antibiotics
Fever of unknown origin	
Viral illness	
Bacterial illness	
Sexually transmitted diseases	
Postoperative infections - disruption of wound - infection of wound	
Other infections and parasitic diseases	

MDC 19 Mental Diseases and Disorders	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Schizophrenia disorders	• Transcranial magnetic stimulation (TMS)
Paranoia and acute psychotic disorders	
Major affective disorders	
Other affective and somatoform disorders	
Anxiety disorders	
Eating and obsessive-compulsive disorders	
Personality disorders and acute reactions	
Childhood mental disorders	
Other mental diseases and disorders	

MDC 20 Alcohol/Drug Use and Alcohol/Drug Induced Organic Mental Disorders	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
Alcohol intoxication and withdrawal	
Drug intoxication and withdrawal	
Alcohol use and dependence	
Opioid use and dependence	
- Other drug use and dependence smoking - gambling	

MDC 21 Injuries, Poisoning and Toxic Effects of Drugs MDC 22 Burns	
Proposed presenting problem / diagnosis-type groupings	**Proposed intervention-type groupings**
- Injuries to the head Intracranial injury - Skull fracture - Other head injury	• Arthroscopy • Compression therapy • Hyperbaric oxygen therapy • K wires and plates • Limb mobilisation • Removal of foreign body • Removal of orthopaedic device • Repair laceration • Wound management (burns dressings, other dressings)
Injuries to neck	
Injuries to thorax (chest)	
Injury/trauma to chest	
Injuries to abdomen	
Injuries to upper limb	
Injuries to lower limb	
Injuries to pelvis, hip, and thigh	
Injury/trauma to subcutaneous tissue - abrasion - contusion - foreign body - lacerations	
Fractures to head	
Fractures to vertebrae	
Fractures to chest, thorax	
Fractures to upper limb	
Fractures to lower limb	
Burn, superficial (erythema, sunburn, first degree)	
Burn, full thickness (third degree, fourth degree, complex)	
Burns of multiple regions, superficial (erythema, sunburn, first degree)	
Burns of multiple regions, partial or deep partial thickness (sunburn with blisters, second degree)	
Burns of multiple regions, full thickness level (third degree, fourth degree, complex)	
Poisoning/Toxic Effects of Drugs and Other Substances	
Post-traumatic infections - post-traumatic abscess - post-traumatic cellulitis	
Other burns	
Other poisoning and toxic effects of drugs and other substances	

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