



# Territory Kidney Care Implementation Plan

*Health Service*

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## 1. Background

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Territory Kidney Care (TKC) consolidates electronic health records (EHR) from public hospitals, government operated primary care services and Aboriginal Community Controlled Health Services (ACCHS). The TKC platform is used as a clinical decision support tool for kidney disease specialists and other clinicians. The system sits within the Department of Health architecture and access is restricted to clinicians for the purposes of clinical care and/or health service planning. Successful integration of multiple health systems – including linking of individual patient records, two-way sharing of information and ability for clinicians to equally contribute to care planning – will drive integrated care for the NT's diverse population.

## 2. Purpose

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The purpose of this document is to assist health services to identify the additional clinical decision and reporting support they wish to receive through Territory Kidney Care (TKC). This includes how clinical advice is received, reviewed, actioned and embedded into current practice.

## 3. Participation

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Participation in TKC for non-government health services is voluntary. Participation is formalised through execution of the Data Participation Agreement, which outlines the working relationship between the partners and the data security, data management, access and privacy protocols. The Implementation Check List forms Schedule One of the Data Participation Agreement. Please refer to the TKC Data Participation Agreement.

## 4. Consent Model and Inclusion Criteria

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Aboriginal primary health services participating in TKC, agree to share patient information with DoH for direct clinical care, specifically renal care. This sharing of patient information, for patients who meet the inclusion criteria (see implementation guide) already occurs but varies in regard to timing and scope.

The patient consent model was developed based on legal advice from two separate legal teams and endorsed at health service workshops and by the Steering Committee. The consent model reflects NT (including the *Information Act 2003* and Information Privacy Principles) and Commonwealth legislation and Acts (including the *Privacy Act 1988* and the Australian Privacy Principles). Patient consent is given as appropriate privacy notices are provided to patients; the patient can reasonably be taken to have consented in the circumstances; the risks associated with implied consent are regarded as acceptable and the patient has the choice to opt-out.

The TKC project team are assisting health services to refine and implement processes to inform patients regarding TKC and provide a mechanism for opting out. Mechanisms already exist within primary health services for patient consent to a 'health assessment' or commencement of a 'chronic disease care plan' and these processes will be built upon to include discussion of TKC.

Patients choosing not to participate in TKC will have 'opt-out' ticked in the electronic health record – a functionality created for Communicare sites. Patient identifiers of those opting out will be retained to identify and remove clinical information for these patients from all other source systems (government and non-government). Primary health services will be supported in their core business of informing patients regarding the care and management they receive when attending the health

service. The TKC project team can assist with the development of this communication – consent and format – which should be devised with individual health services to ensure it is appropriate for the local context.

Information to assist health services advise patients of their rights will be developed in accordance with the health service’s requirements. Health services can cease to participate in TKC by terminating the Agreement at any time.

#### 4.1 Summary of Key TKC Processes

TKC Inclusion Criteria	<p>The current core function of the TKC is to identify, provide clinical support for and report to health services and private practices on patients who have, or are at risk of CKD, and/or undertaking Renal Replacement Therapy (RRT). To meet this objective, patient records that meet the following criteria are included in the TKC reporting data base:</p> <ol style="list-style-type: none"> <li>1. Diagnosis (recorded or derived) of Diabetes, Cardio-vascular disease, Acute Kidney injury, Obesity, Hypertension</li> <li>2. Currently undergoing RRT</li> <li>3. Diagnosis (recorded or derived) of CKD</li> </ol> <p>It is from this cohort that all TKC outputs (see below) are derived.</p>
TKC Patient Identifiers/ Demographics	<p>TKC collects the following identifiers as recorded within each source system:</p> <ul style="list-style-type: none"> <li>• Source system patient identifier</li> <li>• Individual Healthcare Identifier (IHI)</li> <li>• Medicare Number</li> <li>• Hospital Record Number (HRN)</li> </ul> <p>This information along with the following demographic information:</p> <ul style="list-style-type: none"> <li>• Date of Birth</li> <li>• Sex</li> </ul> <p>is used to apply the TKC patient linking process.</p> <p>Further Demographics:</p> <ul style="list-style-type: none"> <li>• First Name and Family Name</li> <li>• Residential address</li> </ul> <p>These additional identifiers enable final patient ID checks.</p>
TKC Patient Linking Process	<p>The TKC system presents a single view of an individual’s medical history from across multiple source systems. TKC relies on existing Patient Identity Management processes within source systems, and uses identifiers already allocated to patients from the source platforms to link records. The TKC system does not alter existing identifiers. Patient names are not used in the identity matching process. Matching follows deterministic matching protocols based on a hierarchical process of:</p> <ul style="list-style-type: none"> <li>• <b>HRN:</b> The NT Patient Identifier, all patients who interact with the NT health service are allocated HRN.</li> <li>• <b>IHI:</b> The National Patient Identifier.</li> <li>• <b>Medicare Number:</b> Allocated to all Australian citizens. Use of the number is strictly controlled. (*Note the checksum and issue numbers are not used when comparing Medicare numbers)</li> </ul>

	<p>However, caveats are applied to ensure linking does not occur where date of birth and gender do not match. Error reports identify records likely to be the same person (based on a process similar to probabilistic matching i.e., two out of four identifiers match) and provide reports to the individual health service so that they may investigate possible data entry errors e.g., transposed numbers in the HRN. The patient matching protocol is described in greater detail in the TKC Business Rule and Data Dictionary. Regular audit reports of matching accuracy are built into the system.</p>
<p>Opt-Out Process</p>	<p>Patients can choose to not be involved and an 'Opt-out' option is available. The TKC opt-out is a two-stage process. Each software system will have an identified method to provide opt out.</p> <p><b>Opt-Out Stage One:</b> occurs within the source system by placing a check in the opt-out group box. This means that when the TKC extraction routine is run the opt-out is recorded and only the patient identifier data is extracted – no clinical data for that patient is accepted into the TKC system.</p> <p><b>Opt-Out Stage Two:</b> occurs within the TKC – the patient identifiers are run through the TKC patient linking routine. Records from other source systems - government and non-government health services - currently within the TKC system, which would have been linked will be identified. All clinical results and measures for these records will also be deleted from the system. The TKC Registration Table will remain and will record the opt-out. Any TKC reports sent prior to the opt-out being recorded will remain – no new reports generated after the opt-out was recorded in TKC will contain any reference to this record.</p>
<p>TKC Outputs/ Agreed Use Cases</p>	<p>Outputs from the TKC Clinical Support Unit to participant health services consist of three types of reports that meet the agreed use cases.</p> <p><b>A. Treatment: for the provision, coordination, or management of health care and related services.</b></p> <p>Patient cohort which will comprise this type of report includes:</p> <ul style="list-style-type: none"> <li>a) diagnosis for CKD or renal failure</li> <li>b) eGFR or ACR indicating CKD or renal failure regardless of diagnosis</li> </ul> <p>The TKC reports used in this case are:</p> <ol style="list-style-type: none"> <li>1. TKC Level 1 reports provide individual patient advice from the CSU Nephrologist and/or CKD team directly to a clinician or the clinic manager. They contain identified patient information.</li> <li>2. TKC Level 2 reports provide lists of patients who are at high risk of progressing to CKD. These patients are not individually case managed by the TKC CSU. These reports are designed to support health service patient management and may be used to improve operational aspects of care, for example, the prioritisation of workloads. Reports contain identified patient information and are provided by the CSU clinicians to health services in accordance with their established protocols (e.g., provided to the chronic</li> </ol>

	<p>disease coordinator, clinic manager). They can be customised to each health service, although it is intended that a suite of standardised reports will be developed to be delivered at pre-determined intervals.</p> <p><b>B. Health Care Operations – analysing data for better understanding of patient population / evaluate impact of clinical interventions</b></p> <p>3. TKC Level 3 reports are intended for use by participant health services to support their own service planning projections, advocacy and annual reporting. The development of each Health Service Implementation Plan will identify their requirements for aggregated reports and how this may be shared among participant health services who are involved in TKC as both providers and recipients of data. Aggregate reports for any level below the NT Health Service Regions will require health service approval.</p>
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## 5. Schedule One to Data Participation Agreement

The purpose of Schedule One is to acknowledge within the Data Participation Agreement the activities the specific health service has completed in preparing to participate in TKC. This Schedule is specific to each health service and therefore modifiable. Once completed, it should be returned with the executed Data Participation Agreement.

Implementation Plan Check list	Yes	No
Key health service decision makers (CEO/Board) are aware of TKC and have agreed to participate		
If No, please refer to Implementation Communication Plan		
Health service (GP/CD Care coordinators) are familiar with TKC and have: <ul style="list-style-type: none"> <li>attended TKC presentations and had opportunities to ask questions</li> <li>contact details for the relevant CSU team for any issues</li> <li>received assistance for the development of staff and patient information</li> <li>an understanding of the consent model and mechanisms for opt-out</li> </ul>		
The health service has determined the: <ul style="list-style-type: none"> <li>mechanisms for notifying clients attending their health service of the possibility of their data being shared with DoH and TKC</li> <li>mechanism for Opt-Out within their EHR</li> <li>staff that will have access to TKC and a training schedule</li> <li>mechanism for receiving individual patient information ie where and to whom is it sent</li> <li>what clinically significant events are important and how they should be reported (individually or cohort)</li> <li>determine the cohort reports that would value add to their service</li> <li>the type of CQI audit reports e.g. unlinked patient records</li> <li>the information in Level 3 (aggregated) reports required for planning/reporting and CQI purposes.</li> </ul>		
The health service has implemented the TKC awareness campaign for patients/clients and assistance with development of patient resources (video messages, posters, flyers etc) has been provided if requested.		
The health service has identified key resources (staff and documents) and risk management strategies to facilitate the successful implementation and uptake of TKC outputs into their business as usual processes.		
The technical requirements for the implementation of TKC have been met: <ul style="list-style-type: none"> <li>Opt-out functionality is available and has been activated</li> <li>Manual extraction to test linkage and harmonisation has been completed of initial report has been planned</li> <li>Method for automation and secure transfer of files has been tested</li> <li>Data transference size limit has been tested</li> <li>Ongoing extracts are scheduled</li> </ul>		
The Health Service is aware that an evaluation of TKC will take place once the system is fully implemented and they will be given an opportunity to determine performance measurements important to them.		



The following sections are provided as a guide to health services to assist them with the implementation of TKC. The testing of certain functionalities prior to full implementation will be critical to a smooth implementation and seamless transition to business as usual. This section should be completed with the TKC project team.

## 6. Technical Requirements

*A key functionality of TKC is the automated and secure transfer of clinical information to reduce the risk and resource burden on health services. This functionality requires some technical configurations with source systems. This section should be filled out with the TKC project team.*

Activities in Preparation for TKC	Completed
Ensure that a TKC opt-out functionality has been created within clinical information system	
Extraction script has been developed according to the health service's inclusion/exclusion criteria	
Mechanism for automated running of scripts and secure delivery have been determined and built if necessary	
Manual extraction and secure delivery of initial data load to test linkage and harmonisation with other clinical data within TKC and has been completed	
Schedule report extractions to test: <ul style="list-style-type: none"> <li>• automation of scheduled reports</li> <li>• secure transmission pathways (via Argus)</li> <li>• data file size is acceptable</li> <li>• Opt-Out functionality works (Fictitious Patient)</li> </ul>	
<i>Document processes for access to and delivery of patient information (see Integration of TKC reports for explanation and examples)</i> <ul style="list-style-type: none"> <li>• How is the TKC message identified in the Communicare In-tray</li> <li>• How to identify that it has been witnessed?</li> <li>• What events should be reported as clinically significant?</li> <li>• How is access granted to TKC (approval and authentication)?</li> <li>• What specific reporting is required (cohort and aggregated)?</li> <li>• Will these be a standard set of reports or generated on an adhoc basis?</li> <li>• Who will receive them (CQI/CD RN)?</li> </ul>	

## 7. Integration of TKC Reports

The TKC Clinical Support Unit will provide reports to health services. Some reports are patient specific (clinical decision support messages), and some will be cohort specific developed in response to the needs of the health service. Each health service will have its own unique processes for receiving and managing information sent for either clinical or operational purposes.

Considering the processes currently in place in your health service, nominate/identify the mechanisms for how the information from TKC, will be received and managed.

### **1. TKC Individual patient clinical decision support**

This is a communication from the Specialist directed to a GP. It is sent via secure message pathways and contains specific and identifiable patient clinical information which is attached to a patient record. Clinically Significant Events (CSE) are clinical situations determined by the health service as warranting GP attention. These messages are witnessed. The destination of the message and mechanism for witnessing must be identified by the health service as they are directed to a Generic In-tray name in Communicare.

Summary or synopsis reports, provides a summary of the available information in TKC. This summary report is correct at time of generation but may not contain the complete record of patient events if the patient has attended a health service that is not participating in TKC.

Summary reports may also be viewed by clinicians provided with access to TKC. This may eliminate the need for sending summary reports that have to be witnessed.

### **2. Lists of identified patients**

Health services may choose to receive cohort reports that list identified patients that meet specific criteria. These could be based on a variety of criteria including KPI reporting or according to the health service's needs, e.g. lists by rapid CKD progression; or those likely to require dialysis treatment in the next 12 months but are without a fistula; or CQI reports that assist with data cleaning and validation such as patient matching reports for the checking and correction of identifiers.

### **3. De-identified Aggregate reports**

Health services may choose to receive aggregated reports to support their strategic goals, service planning, annual reports or advocacy. These will be developed in consultation with the health service through an ongoing and iterative process.

## 8. Communication Plan

A communication plan helps to ensure key staff and personnel have the relevant information and resources required to support effective and efficient implementation.

Who needs to know about TKC?	What they need to know?	How will you let them know?
CEO/Board / Managers	What is TKC and what information is collected? What are the benefits to the patient, clinician, health service? How is support provided to health services? The Consent model, Opt-out and how patients are informed about TKC	Presentations FAQs TKC Implementation Plan (this document) TKC Project Progress Reports
GP and clinical staff who access the system or receive information through the system	How do I gain access, who do I call for assistance? What information will be sent to GPs and what action should be taken? How do I feedback to the CSU? What is a clinically significant event? How do I inform the CSU that information from TKC is incorrect or erroneous?	Presentations/ Clinical collaboratives Training sessions
CQI Staff	What can TKC provide to enhance care and improve quality of data How can TKC reports integrate into my current practices	Presentations TKC Team Collaborations

## 9. Risk Management (Suggested)

*The purpose of the Risk Management Plan is to identify and pre-empt potential risks associated with the implementation of any new process. Some suggestions have been populated in the table.*

What are the Risks?	How this risk could be managed (minimised)?
<i>Data extract size is too large for Argus</i>	
<i>Failure to nominate correspondence destination</i>	
<i>Opt-out is not activated</i>	
<i>Scheduled extracts are not automated</i>	
<i>Unsure of how to inform CSU of erroneous or incorrect assumptions in patient reports and CSE</i>	

## 10.Key Resources and Documentation (Optional)

The following table is intended as a quick reference guide to key people and/or documents for the implementation of TKC. This information will be useful to track and manage TKC implementation at your health Service. The headings are intended as a guide only.

<b>Lead Person / Group for your TKC Implementation (Champions)</b>	
<i>HS person/team tasked with leading TKC implementation</i>	
<i>HS Clinical Lead (TKC Clinical Governance)</i>	
<i>HS Technical (Information systems) Lead</i>	
<b>Key Documents that you need to locate in your health service directory or that provide information on TKC</b>	
<i>Organisation Policy/procedures re collection, use and sharing of patient data/information</i>	<a href="https://www.gpa.net.au/wp-content/uploads/The-RACGP-Patient-Privacy-Pamphlet-template.docx">https://www.gpa.net.au/wp-content/uploads/The-RACGP-Patient-Privacy-Pamphlet-template.docx</a>
<i>TKC Consent Model and Legal Advice</i>	<a href="https://www.gpa.net.au/wp-content/uploads/The-RACGP-Privacy-Policy-Template-for-General-Practices-1.docx">https://www.gpa.net.au/wp-content/uploads/The-RACGP-Privacy-Policy-Template-for-General-Practices-1.docx</a> <i>Enter file location / link</i>
<i>Health Service Patient Information Sheets</i>	<i>Enter file location / link</i>
<i>Participation Agreement and Guide</i>	<i>Enter file location / link</i>
<i>TKC videos and posters</i>	
<b>TKC and CSU Resources available to assist your health service implementation</b>	
TKC System Administrator: access to TKC, training and user feedback  Clinical Lead: development of functionalities, user feedback  Nephrology specialists and CKD nurses allocated to your health service / region	Contact details: Paul Kamler TKC Informatics CNC <a href="mailto:paul.kamler@nt.gov.au">paul.kamler@nt.gov.au</a> Dr Asanga Abeyaratne Nephrologist / Clinical Lead TEHS Renal Service Outreach Program TEHS Renal Services Dialysis Unit