SOUTH EAST LONDON 111 INTEGRATED URGENT CARE TECHNICAL SPECIFICATION

Contents

1. Introduction

The South East London 111 Integrated Urgent Care Service (hereafter referred to as the IUC Service) is comprised of a 111 call handling service and Clinical Assessment Service (CAS)/Integrated Delivery Units (IDUs), which are underpinned by technology. This specification therefore sets out the standards against which technology must be procured and emphasises the importance of robust resilient solutions.

2. NHS 111 Call Handling Service Requirements

2.1 Telephony

2.1.1 Access and Hours Of Operation

The provider is expected to receive calls 24 hours a day, 7 days a week, including weekends and bank holidays.

2.1.2 Hosting and Charge Reversal

The 111 number is hosted on the chosen telephone carrier's network (the 111 Carrier) through a contract procured centrally by NHS England. It is free to call 111 from landlines and mobiles, with call charges being automatically reversed in the form of an "inbound-call-charge", which is levied on the contract holder. For the avoidance of doubt, the cost of hosting the 111 number and reversing the call charge in England is borne by NHS England and not recharged to the Provider.

2.1.3 Routing and Streaming

Callers to NHS 111 are routed via the national NHS 111 telephony system to the pan-London NHS 111 telephony system, known as the Patient Relationship Manager (PRM); from this, calls are then routed to the organisation commissioned to receive NHS 111 calls in the geographic area from which the call originated.

NHS 111 providers may introduce a simple single layer "press 1" style Interactive Voice Response (IVR) to stream callers to the most appropriate resource. The design of any such IVR menu must adhere to the Telephony Messaging Strategy. In London, all such IVR options are applied at the pan-London telephony system level and therefore this must be coordinated through NHS England.

2.1.3.1 Location Based Streaming

The underlying principle behind 111 call routing is that the call should wherever possible be delivered to the provider covering the area from which the call originated.

Where available, the location of a caller is identified using information sent to the 111 Carrier by the caller's network operator. In the case of landlines, the National Numbering Group (NNG), formerly known as STD or area code, is used. For

mobiles, the mast from which the call originated or the emergency zone (a group of masts in a specific area) is used.

If it is not possible to determine the location using information from the caller's network, for example in the case of internet phones, a natural voice recognition system is used. The system asks the caller to state their nearest large town or city (borough, tube or rail station in London) in order to determine the origin of the call. After two attempts, if the caller fails to respond or the response is not recognised, the call is classed as Location Unknown.

In a small number of cases where an NNG, mobile mast or emergency zone straddles a border between providers, a simple "press 1 if you are in North Essex or 2 if you are in South Essex" style call steering mechanism is used.

The Commissioner shall work with the NHS England IUC Team to map postal towns and cities, NNG, mobile masts and emergency zones to the Provider's catchment area. Where necessary the Commissioner shall liaise with bordering commissioners.

2.1.3.2 Location Unknown Calls

Any calls where location could not be determined are distributed amongst all providers based on each provider's normal share of the national call volume.

The Provider shall handle any Location Unknown Calls on a reciprocal basis treating them as if they had originated from the Provider's catchment area and form part of the contracted volume. For the avoidance of doubt, no recharges will be levied on the caller's local commissioner.

2.1.3.3 Call Steering – Interactive Voice Response and Natural Language Processing

The 111 Carrier's platform is capable of providing Interactive Voice Response (IVR) functionality (e.g. "press 1 if you or the person you are calling about is feeling unwell, press 2 for repeat prescriptions…"). In London, this functionality is activated on the pan-London telephony platform, rather than the national or local platforms.

The Provider shall procure a solution capable of "press 1 for …" type functionality to steer callers to the correct resource. System capacity e.g. number of ports shall be provisioned to ensure that the initial call from the 111 Carrier's platform is answered within 5 seconds and that there is no noticeable inter announcement delay.

The Provider shall adhere to the IUC Telephony Messaging Standards.

Interactive Voice Response (IVR) utilising Natural Language Processing (NLP) is utilised in the PRM pan London intelligent telephony routing system. The PRM system allows for the initial categorisation of some callers and will in the future expand on that categorisation. This will mean that IUC providers must allow for distinct call type capacity to grow using distinct DDIs.

At this time, call delivery numbers are required for the delivery of calls under normal circumstances:

- Primary, by SEL Borough
- Secondary, by SEL Borough
- for the following call Types
    - Service Advisors
    - Health Advisors
    - Clinical Advisors
    - National Contingency Calls
    - Unknown Location Calls
    - Default Routed Calls
    - Mental Health Calls
    - Health Care Provider (HCP)5
    - HCP6
    - HCP7
    - HCP8
    - HCP9
    - HCP0
    - Dental
    - Pharmacy
    - Age filtered calls (<1 or >75)
    - Repeat Callers Admin
    - Repeat Callers Worsening
    - Covid

Also, DDIs must be supplied to be used in the event of a PRM bypass being required. These can be re-purposed from the above or distinct.

2.1.3.4 Resilience

The 111 Carrier's platform is located across multiple data centres for resilience. In the extremely unlikely event of the primary platform failing, the 111 Carrier's underlying network can continue to route 111 calls using what is known as 'default routing'. This involves distributing 111 calls across providers using the same principles as Location Unknown Routing.

When ‘default routing’ is active, the Provider shall treat these substitutional calls as if they had originated from the Provider’s catchment area and form part of the contracted volume. For the avoidance of doubt, no recharges will be levied on the caller’s local commissioner.

2.1.3.5 National and London Contingency

If a provider suffers a major technical failure or site evacuation, NHS England can re-route calls to the remaining providers based on their normal share of the 111 call volume (adjusted to compensate for the absence of the failing provider).

London ICBs have agreed an escalation plan and surge management process which includes, where appropriate, the use of 111 load balancing operated by the London Patient Relationship Manager to transfer 111 calls to another London provider in the event of an emergency, significant incident or scheduled maintenance – the Provider is expected to adhere with this process and therefore will receive 111 calls and provide consultation from other London providers during these times.

In addition, the Provider shall handle any National Contingency calls on a reciprocal basis treating them as if they had originated from The Provider’s catchment area and form part of the contracted volume. For the avoidance of doubt, no recharges will be levied on the caller’s local commissioner or failing provider.

In exceptional circumstances, if a provider is deemed to have become clinically unsafe, a percentage of calls can be re-routed away from that provider using National Contingency.

2.1.4 Maintenance of the 111 Carrier’s platform

Where possible, maintenance work on the 111 Carrier’s platform will be carried out during quiet periods (predominantly Tuesday to Thursday 10:00 to 16:00).

2.1.4.1 Local Planned Engineering Works

Where possible all local Planned Engineering Works on the Provider’s systems should be undertaken in such a way as to avoid downtime.

On a case-by-case basis NHS England shall consider requests to use National Contingency to cover local Planned Engineering Works.

2.1.5 Receiving Calls from 111

To deliver the 111 call to providers, the 111 Carrier’s platform simply dials a delivery number. If that delivery number is busy or no front-end announcement is detected, secondary or even tertiary numbers can be dialled.

If required, calls can be load balanced across two sets of delivery numbers. This is beneficial when delivering to larger providers operating split architecture. For the avoidance of doubt, this functionality can only be used at data centre level and cannot be used to mimic a virtual system across multiple contact centres.

The Provider shall issue delivery numbers to which 111 calls can be delivered. At a minimum, delivery numbers are required for:

- Delivery of calls under normal circumstances
    - Primary
    - Secondary
    - Tertiary (optional)
- Delivery of National Contingency Calls
- Delivery of Unknown Location Calls
- Delivery of 'default routed" calls
- Any IVR options

In the event that a call cannot be delivered to the Provider, due to a fault or line congestion, a message stating that "it has not been possible to connect your call" is played to the caller (known as the Technical Difficulties message). The Provider shall take appropriate action to ensure that the Technical Difficulties message is not played. This should include but not be limited to requesting that the 111 Carrier change delivery numbers to bypass faulty components and ensuring sufficient line capacity.

The porting of individual telephone numbers between carriers involves call redirection which in turn can result in carrier interconnect congestion. The Provider shall ensure that the chosen carrier has sufficient carrier interconnect capacity and where possible avoid previously ported numbers.

2.1.5.1 Lines

The 111 Carrier's platform does not queue calls, as to do so would create significant reporting challenges. It is therefore essential that there are sufficient lines to support local queueing.

The Provider shall provision a minimum of 3 lines for every equipped agent position. These lines can be conventional ISDN (Integrated Services Digital Network – conventional digital telephone lines) or modern SIP (Session Initiated Protocol. A protocol that allows voice to be transmitted as packets of data across a data network. SIP trunks use this technology to deliver telephone lines.), but where SIP is provisioned, at least one ISDN bearer is recommended as the primary circuit for resilience. Any traffic on SIP bearers should be uncompressed for optimum voice quality.

2.1.5.2 Automatic Call Distribution/ Private Branch Exchange (PBX)

The Provider shall provide as part of the contract a high availability Automatic Call Distribution system (ACD) to queue calls that cannot be delivered directly to agents.

Voice traffic shall be prioritised in accordance with manufacturer's guidelines and transverse the network in uncompressed format for optimum voice quality.

To facilitate remote working, the Provider shall procure a solution to securely extend the contact centre telephony and desktop in such a way as to emulate the contact centre experience. This solution must utilise the national high-speed IP-based virtual private network used by NHS (N3)/ Health & Social Care Network – a data network for health and care organisations which will replace N3 (HSCN) circuits where available with any traffic over the public internet being encrypted using appropriate levels of encryption. To achieve this requirement an accredited VPN (Virtual Private Network) token authenticated solution, such as the one provided by N3/HSCN must be procured.

Although there are remote telephony solutions that allow both the voice and call control to traverse the public internet, they are reliant on extremely good internet connections. Home working solutions that allow the voice path to be established over the analogue public telephone network are preferable. These solutions keep the telephone line open for the duration of the shift to ensure good audio quality and are less likely to suffer disconnections. They also allow the call to be recorded at source on the Provider's voice recording platform which is another essential requirement for 111 call handling providers. The provider shall ensure that the procured solution supports home working.

2.1.6 Access Channels

Callers will access the 111 call handling service by the following routes:

- NHS 111 Telephony
- British Sign Language Interpreting Services
- 999 direct transfer of low acuity patients not requiring an ambulance via warm transfers i.e. the call will be transferred from the 999 call handler to the 111 call handler, while the patient is on hold, with a verbal handover given by the 999 call handler

2.1.6.1 British Sign Language

The 111 call handling provider must provide a direct dial in (DDI) line for referrals from the British Sign Language (BSL) service and prioritise these calls above other calls waiting. It is a requirement that these calls will be tagged (subject to patient consent) following the first call and consent to improve the response for these patients will be sought. The volumes of callers accessing the service via the BSL

service or a Typetalk service should also be captured to allow commissioners to monitor equality of access.

NHS England has procured a BSL interpreting service through the 111 Carrier. BSL callers establish a video link with the interpreter via an app or link on NHS Choices (http://www.interpreternow.co.uk/nhs111/). A voice call is then made by the interpreter into the correct provider after identifying the caller's location based on the postcode. In the event that a call-back is required, a dedicated BSL call-back number has been issued (call back only works with the app and requires the app to be running to receive the call).

The Provider shall issue a separate delivery number for BSL interpreted calls. Due to the fact that an interpreted call takes longer than a normal voice call, and interpreters require regular breaks, priority should be given to answering these calls. It is also preferable to warm transfer as opposed to scheduling a call-back.

2.1.7 Role Based Workflow

The 111 call handling provider shall ensure that the initial call fulfils the following functions and records the information accurately:

- Capture of patient demographics;
- Initial acuity assessment and elimination of life threatening conditions standard questions;
- Ambulance dispatch where needed; and
- Call streaming via appropriate decision support triage tool to a competent registered clinician.
- Combining local protocols with clinical algorithms within Clinical Decision Support Systems (CDSS) is acceptable provided this has the following attributes:
    - Local clinical governance approval with defined processes for monitoring and assuring on-going clinical safety;
    - Providers explicitly address how this may affect any licensing agreements with existing CDSS providers, and any resultant medical legal liability resides with the local service.

2.1.8 Other Users of 111

The 111 number is available across the whole of the UK national numbering scheme (any country using UK area codes). Devolved Administrations such as Scotland and Wales procure services directly from the 111 Carrier in their locality through side agreements to the main NHS England contract.

In the event of a flu pandemic, the 111 number will also be used by Public Health England (PHE) to access the National Pandemic Flu Service (NPFS). When NPFS is

activated, this is achieved by a “press 2 for antivirals” style menu option at the front of 111 which will route calls to dedicated NPFS contact centres.

2.2 Interdependencies with Other Services/Providers

The 111 call handling service must have the capability to warm transfer calls to downstream services e.g., Integrated Delivery Units, Mental Health Crisis Lines.

2.2.1 The Pan-London Dental Nurse Triage Service

The 111 call handling provider will provide a call-handling service for the London dental nurse triage service, using the approved shortened triage pathway, agreed by the pan-London Integrated Urgent Care Clinical Governance Group and a point-to-point referral procedure.

2.2.2 New Services/Helplines

NHS 111 should be the telephone contact for all urgent care services. However, there may be occasions where there is a need for a bespoke helpline using a separate non-geographic Freephone number (for example, a service only required by a very small number of people for a limited period). The provider shall provision any such numbers at local level on request.

3. Clinical Assessment Service (CAS) / Integrated Delivery Units (IDUs) Requirements

3.1 Access and Hours of Operation

3.1.1 Access Channels

The Provider shall make provision to receive contacts from the following channels:

- NHS 111 Telephony
- NHS 111 Online
- British Sign Language Interpreting Services
- 999 direct transfer of low acuity patients not requiring an ambulance via electronic message into queue.
- Electronic message request for Health Care Professional (HCP) call back
- Electronic message with pathology laboratory results for follow up

3.1.1.1 NHS 111 Telephony

The Provider must have the capability to receive warm transfers from the 111 call handling service (i.e. the call will be transferred from the 111 call handler to a clinician, while the patient is on hold, with a verbal handover given by the 111 call handler) as well as case referrals via electronic ITK into the Provider’s IT platform.

3.1.1.2 NHS 111 Online

The Provider is expected to receive and complete consultations for NHS 111 Online case referrals via electronic ITK into the Provider's IT platform.

3.1.1.3 Digital triage tools

The Provider is expected to receive and complete consultations for referrals from digital triage tools utilised by the 111 service, via electronic transfer into the Provider's IT platform.

3.1.1.4 British Sign Language Interpreting Services

The provider is expected to accept warm transfers from 111 call handlers should a further clinical assessment be required for those utilising the British Sign Language Interpreting Services.

3.1.1.5 999

The CAS/IDUs must be capable of receiving relevant cases electronically via ITK from the Ambulance service into their clinical work flow.

3.1.1.6 Health Care Professionals

Health Care Professionals Webforms are being piloted by London Ambulance Service (999), if successful, this will be rolled out pan-London across all HCP disciplines. The provider is expected to develop against capability to receive these directly into the CDSS system.

3.1.1.7 Pathology Laboratories

Pathology Laboratories Webforms are being piloted in London by another ICB, if successful, this will be rolled out pan-London. The provider is expected to develop against capability to receive these directly into the CDSS system.

3.2 Role Based Workflow

Providers must have access to ePrescribing for the issue of prescriptions, and to the Electronic Prescription Tracker to advise patients on the status of prescription requests that are in progress.

Direct connection with the Electronic Prescribing Service (EPS) is established and embedded as part of the clinical workflow (Rationale: For patients needing a prescription following a remote/telephone consultation this can be done without requiring a face-to-face appointment, this approach is widely used across GP practices).

Clinicians should be able to access the patient's record (Summary Care Record (SCR); Enhanced SCR; Special Patient Notes, Universal Care Plan records, CP-IS

child protection records and any other care plans held within the GP record as well as the patient's GP record through the Patient Relationship Manager or National Reporting and Learning System (NRLS) when it is appropriate and beneficial to do so and permission has been gained).

4. 111 Call Handling and CAS/IDUs Combined Requirements

4.1 Overview

In addition to the specific requirements for 111 Call Handling and CAS/IDUs respectively, this section outlines the requirements applicable to both types of services.

Including, but not limited to:

- A robust telephony system in place to support all of the required activities of the service.
- Contingency plans in place in the event of a telephony or computer system failure.
- They consider how the chosen Clinical Workflow System interoperates with the Online Digital Services.
- Installation of an Ambulance Response Programme (ARP) compliant clinical decision support system (CDSS) version.
- Any CDSS must be used in accordance with any licensing requirements.
- The chosen clinical workflow system has technical integration with the Personal Demographics Service (PDS)
- That the chosen clinician workflow system has the ability to integrate with the National Repeat Caller Service.
- The chosen clinical workflow system can provide Patient Flag functionality, allowing advisors and health care professionals to be proactively alerted where important information is available to assist with and direct the specific care that is provided to the patient.
- That health care professionals have effective access to the SCR for all patients, subject to appropriate access controls.
- The chosen clinical workflow system has the ability to query the Child Protection Information System (CP-IS).
- Health care professionals are able to access detailed primary care/GP records for all, subject to appropriate access controls.
- Implementation of electronic referral methods when referring to any other services.
- Implementation of a solution capable of direct appointment booking with destination services through the chosen clinical workflow system. Booking

shall be available for both in-hours and out-of-hours services (such as, GP Practices, GP Hubs, GP Out of Hours service and Urgent Treatment Centres).
- The use of Post Event Messaging using the Clinical Document Architecture (CDA) in electronic form (ITK), or whatever may supersede it in the future.
- That procured solutions have multimedia capability.

4.2 Interoperability and Technical Requirements

4.2.1 Repeat Caller Service

The National Repeat Caller Service exists to ensure that any health care professional assessing a patient's needs within IUC will have access to the clinical records of any recent contacts made with IUC by or on behalf of that patient.

The Provider shall ensure that the chosen clinical workflow system has ability to integrate with the National Repeat Caller Service. The Repeat Caller Service must be automatically queried at the beginning of the patient's encounter with the IUC service. In the instance that first contact is made directly with a service other than the telephony service (such as, a CAS/IDU), the Repeat Caller Service query shall be performed by whichever clinical workflow system is used at the first contact.

Where a patient is highlighted as a repeat caller by the Repeat Caller Service, the chosen clinical workflow system must enable an alternative workflow in line with the call handling process for repeat callers.

Note: this technical integration is specific to Repeat Callers and the National Repeat Caller Service and does support the identification of frequent callers, or those with designated care plans.

Although the Repeat Caller Service is currently built to meet a specific set of requirements in line with the existing IUC Repeat Caller processes, the Provider shall ensure that the chosen clinical workflow system can be updated to encompass changes to the service in the future.

Further information on the technical integration requirements for the Repeat Caller Service can be found in the Urgent and Emergency Care (UEC) Interoperability and Technical Standards.

4.2.2 Commissioning and Procurement of a Clinical Decision Support System

The Provider shall ensure that any procured Clinical Decision Support System (CDSS) meets the following standards:

- It has been robustly tested within the NHS in England;
- It has been demonstrated to be safe, appropriate for each staff / clinical competency level within the service;

- It has an assured evidence base that demonstrates clinical safety;
- It is able to electronically dispatch an ambulance as an integral part of the workflow;
- It can be seamlessly connected to the NHS Pathways Directory of Services (DoS) via the defined Interoperability Toolkit (ITK) messaging standards;
- It has been assessed by The Medicines and Healthcare products Regulatory Agency (MHRA) as not being a medical device or be accredited by MHRA as a medical device;
- It meets the relevant Information Governance standards –
    - The provider will also need to demonstrate they have a DCB0160 for the deployment of the system;
    - Data Security and Protection Toolkit assessment which has been audited
    - ICO registration
    - Demonstrates compliance with UK GDPR, Data Protection Act 2018 and Common Law Duty of Confidentiality.
    - DTAC and
- It demonstrates compliance with relevant International Organization for Standardization (ISO) standards.

4.2.2.1 Ambulance Request

The Provider shall ensure that the chosen clinical workflow system supports direct ambulance requests using the ambulance interoperability standards (also referred to as ITK Messaging) in line with the Urgent and Emergency Care (UEC) Interoperability and Technical Standards.

The chosen clinical workflow system must provide a way of automatically identifying the appropriate ambulance service for a patient – this can make use of either local functionality or a nationally provided directory.

The chosen clinical workflow system must ensure that ambulance request functionality can be made available to appropriate users flexibly in order to support both existing and potential service workflows within IUC.

4.2.3 Technical Interoperability

The chosen clinical workflow system must provide technical interoperability to allow booking of appointments into other services as an integrated part of the system workflow. The Provider shall ensure that full technical specifications are made available from the chosen System Supplier for any technical interfaces that are implemented for appointment booking.

The Provider shall ensure that the chosen clinical workflow system is committed to implementation of national appointment booking interoperability standards at the earliest opportunity.

Further information on the technical interoperability requirements for Direct Appointment Booking will be published by NHS England in the UEC Interoperability and Technical Standards.

4.2.3.1 Referrals and Transfers (covering Sending, Receiving, Content, and Endpoints)

All patient encounters that are electronically transferred between IUC service providers must follow the interoperability standards – see section 5 for references.

4.2.4 Speaking to a Clinician

Any cases queued for a clinician to call back must be queued within a system that allows the person monitoring the queue to see at a glance how long the call has been in the queue, what priority it entered as, how long is left before the target call back time is met and brief details of the clinical concern.

If a warm-transfer takes place this must include a hand-over conversation between the 111 call handler and the clinician which must be voice recorded.

If a patient is transferred from the 111 call handling provider to a clinician within the CAS/IDU only a final PEM need be sent with outcome information.

4.2.5 Continuation of Triage

It is important that a patient does not have assessments repeated when moving through IUC.

The Provider shall ensure that it is possible for existing assessments to be continued where possible (e.g. using the NHS Pathways validation functionality) regardless of whether this is being completed in the same system in which the triage was started.

In the event that an assessment is passed to a clinician using a different clinical workflow system, those systems must support the necessary interoperability to transfer the assessment in a structured form to allow validation and continuity. The messaging standards do not officially support the continuation of an NHS Pathways triage across different systems. However, any referrals must include information relating to previous consultations.

4.2.6 Transferring/Referring Patients between Services

All patient transfers and referrals between IUC services must make use of the defined interoperability standards for referrals and transfers (often referred to as ITK Messaging).

The Provider shall identify the interoperability roles that need to be fulfilled and ensure that the chosen clinical workflow system supports the specific interoperability requirements required for those roles. In the majority of cases, service providers should require their clinical workflow system to support all possible interoperability workflows as this provides the greatest flexibility for introduction of new service models in the future.

The key transfer/referral interoperability roles are:

- Service provider transferring or referring a patient to another IUC service; and
- Service provider receiving a patient from another IUC service.

The architecture must be designed in such a way as to enable end to end reporting.

4.2.6.1 Directory of Services

The Provider shall ensure that the chosen clinical workflow system has technical integration with the DoS, allowing the appropriate search and retrieval of service information. Further information on technical integration requirements can be found in the Directory of Services API suite.

4.2.6.2 Appointment Booking

The Provider shall ensure that the chosen clinical workflow system provides direct appointment booking as an integrated part of the user workflow. This means that users should be able to complete the booking functions within the same clinical workflow system in use by the Provider wherever possible.

The chosen clinical workflow system must make use of nationally defined interoperability for direct appointment booking, where available and appropriate to the workflows e.g. GP Connect, Booking and Referral Standards (BaRS). Whilst these national Application Programming Interfaces (APIs) are still in development providers are advised to make use of other locally available technical solutions to facilitate direct appointment booking. Where local technical solutions are available, the Provider shall ensure that appropriate plans are in place for migration to a nationally defined solution when it becomes a viable option.

The Provider shall implement a solution capable of recording where booking has not been possible as a result of slot unavailability.

System suppliers shall ensure that workflow design follows a user-led approach to ensure that functionality is provided at the appropriate points within the system. A seamless and supportive user experience is essential to realising the benefits from direct appointment booking interoperability.

4.2.6.2.1 Notifications and Reminders

The Provider shall implement a solution capable of sending an optional appointment confirmation and/or reminder messages to patients using short message service (SMS) or email.
As a minimum, appointment confirmations should provide the time/date/location of the booked appointment, and details of the service into which the appointment has been booked. Appointment confirmations should avoid containing personal identifiable data (PID) unless specifically necessary and should only be sent to a verifiable contact number.

4.2.6.3 Post Event Messaging

The Provider shall ensure that the chosen workflow system sends an electronic Post Event Message to a patient's registered GP practice by 08:00 the next working day.

4.2.6.4 Online/Digital Services

The Provider shall ensure that patient entered information captured by the Online Digital Service can flow to support the clinical assessment to avoid duplication of effort and repetition for the patient and clinical staff.

The provider must ensure that all online services are integrated with local CAS/IDUs.

For further information on technical interoperability with Online Digital Services, providers should refer to the UEC Interoperability and Technical Standards.

4.2.6.5 Safeguarding Children and Vulnerable Adults

Providers must have access to the Safeguarding referral system DocWorks, ideally via an in-context URL link that will allow the call handling software to pass in key demographic data into DocWorks for any safeguarding referrals. For business continuity purposes, the safeguarding referral form – both hard copy and an electronic version – must be available to staff, with the ability to share completed forms via secure email with the relevant safeguarding team.

4.2.7 Desktop IT Systems

The Provider shall ensure that agent's desktop should be delivered using established virtual desktop technology in such a way as to ensure that there is no "data at rest" on the remote device. A softphone package should also be installed for telephone call control and access to real-time queue information.

4.2.8 Voice Recording

The Provider shall ensure that all calls are voice recorded on extension side and that all conversations, including internal consultation and warm transfer requests, are recorded to a legally admissible standard. The Provider shall make specific reference to the retention period for voice recordings in the Records Retention Policy.

The Provider shall store voice recordings in accordance with the Records Retention Period. For the avoidance of doubt, this may involve the need to tag calls with the patient's date of birth to enable records to be purged when the retention period has elapsed.

4.2.9 Records Management

The Provider shall maintain all records in accordance with an NHS Information Governance compliant Records Management Policy. The provider shall have in place appropriate systems for the appropriate management of records at the end of any contract, including transfer, on-going access agreements to meet medico-legal obligations and appropriate certified destruction.

4.2.10 Resilience and Capacity Planning

The provider shall ensure that it establishes redundancy of components in accordance with Uptime Institute Tier II standards as a minimum. This shall include a geographically separated resilient architecture with N+1 resilience as a minimum. All key components shall be powered by generator backed supplies with uninterruptible battery backup that are remotely monitored. Electrical switchgear components should be successfully tested for seamless failover on at least an annual basis. Data and telephone lines shall be diversely routed and where possible sourced from multiple carriers or network providers. Any relevant preferential listings should be sought and all components shall be maintained in accordance with manufacturer's guidelines. For the avoidance of doubt, all maintenance contracts should include priority 24-hour, 365-day, on-site cover.

The Provider shall undertake regular capacity planning exercises (i.e. an annual plan with monthly review of performance and immediate review when warning thresholds are breached) to ensure that networks, platforms and lines are scaled to handle peak demand without degradation. It should not be assumed that roster fulfilment will be

achieved; therefore, modelling must consider the impact of excessive queueing on lines, IVR ports and other technical components.

It is often the case that certain positions within the contact centre are only used at peak times. The Provider shall therefore undertake pre-busy period inspections to ensure that all workstations and phones are fully functional.

4.2.11 Security

The Provider shall ensure that appropriate security measures are put in place to protect systems from malicious attack and or loss of data. This shall include but not be limited:

- As a minimum, annual accreditation to cyber essentials plus with all aspects of the service provided within scope of the assessment.
- Maintain “standards met” or equivalent in the annual data security and protection toolkit.
  Annual penetration testing of all public internet facing components by an external organisation against a relevant framework e.g. OWASP, with vulnerabilities CVSS score above 7.0 addressed within 2 weeks;
- Multi factor authentication applied to any accounts that access personal identifiable data, all remote access via the internet and all privileged/administrator access
- Deployment of Intruder Protection Systems;
- Behavioural monitoring;
- Anti-Virus (AV) with real time updates; and
- Ongoing review of vulnerabilities and application of all security related patches within 2 weeks where there is vulnerability with a CVSS score of 7.0 of above.
- Patching shall cover all components that may have an exploitable vulnerability; for example, operating systems, firmware, browsers, libraries, packages, etc
- 3-2-1 immutable backup approach applied in line with national cyber security centre guidance
- Appropriate due diligence of supply chain security

Note that that commissioner will require the provision of a System Level Security Policy that is reviewed and approved by the commissioner prior to go live.

4.2.12 Multimedia Capability

The Provider(s) shall ensure that procured solutions have multimedia capability, including but not limited to:

- Audio
- Instant Messaging / Web Chat

- E-mail
- SMS (text)
- MMS (picture)
- High definition picture files
- Video

Which will be created, processed and stored in an appropriate common media format.

4.3 Access to records

4.3.1 Personal Demographic Service

Personal Demographics Service (PDS) is the national electronic database of NHS patient details such as name, address, date of birth and NHS Number (known as demographic information). The PDS should be used to identify patients when they present to urgent care services.

In a UEC context, PDS allows the provider to confirm a patient's demographics including their name, date of birth, sex, the GP surgery at which they are currently registered, and their current home address. This is an essential enabler for interoperability between services and enables providers to send Post Event Messages (PEMs) to the patient's registered GP surgery.

IUC provider requirements:

- The patient's NHS number shall be verified using PDS
- The chosen clinical workflow system has technical integration with PDS and supports the use of Advanced PDS Tracing
- An Advanced PDS trace shall be performed for all patients during their encounter with IUC and shall be an integrated part of the workflow within the clinical workflow system and available to all users, subject to appropriate access controls. It is not permissible for traces to be performed manually by use of a separate system.
- For patient referrals/transfers from another service (including online), if it is established that a PDS trace has not been performed by the sending service, the receiving service must perform a PDS trace for that patient at the point of referral.
- Where a PDS lookup has been performed online, the information must be captured by the provider's workflow system as part of the referral.
- For CAS/IDUs, on receipt of patients streamed to a CAS/IDU through an NHS 111 telephony or online channel, the CAS/IDU must validate the demographics and if necessary, run a PDS match before placing the call in the appropriate clinical queue for assessment.

To develop against PDS, a formal specification of the HL7 (Health Level Seven) version 3 messaging to Spine required for accessing PDS is available on TRUD (Terminology Reference Data-Update) as part of the NHS Message Implementation Manual (MiM) following registration for access: https://isd.digital.nhs.uk/trud3/user/authenticated/group/0/pack/34/subpack/28/releases

A copy of the MiM specifications is also available here: https://data.developer.nhs.uk/dms/mim/4.2.00/Index.htm

4.3.2 National Care Records Service

The National Care Records Service (NCRS) holds important information from the GP patient record, including:

- Name, address, date of birth and NHS number of the patient
- Current medication
- Allergies and details of any previous adverse reactions to medicines

It may also include additional information, such as details of long-term conditions, significant medical history, or specific communications needs.

The Integrated Urgent Care Service Specification has clear requirements relating to NCRS access and integration:

- ensure that health care professionals have effective access to the NCRS for all patients, subject to appropriate access controls.
- access to the NCRS must be embedded within the chosen clinical workflow system as an integrated part of the workflow.

To meet these requirements, information from the NCRS can be presented as rendered document, through an existing stand-alone web portal (SCRa), or preferably via an integrated view within an existing clinical system e.g. via an in-context link within the 111 Electronic Patient Record (EPR) and workflow for each patient / contact.

The data for the NCRS can also be accessed directly via Spine using the EIS defined interfaces or Simplified Spine Mini Services. For more information on accessing the NCRS directly, contact the SCR team at NHS Digital: enquiries@digital.nhs.uk

4.3.3 Patient Flags/Special Patient Notes

The Provider shall ensure the chosen clinical workflow system can provide Patient Flag functionality, allowing advisors and health care professionals to be proactively

alerted where important information is available to assist with and direct the specific care that is provided to the patient.

The Provider shall ensure that the clinical workflow system supports the necessary interoperability requirements to ensure that important information held in other systems is available and presented in a timely manner to the users.

The Provider shall support and enable information sharing between providers. This must include but not be limited to relevant Special Patient Notes.

It is required for the Provider and the system used by the provider to work with the London regional team to install and maintain any upgrades in a timely manner to London region Special Patient Note lookup endpoints that have been developed in the London PRM to enable a greater source of flagging data. This includes flagging the Universal Care Plan. This service uses a bespoke Adastra SPN API currently.

4.3.4 Child Protection Information System

Child Protection Information System (CP-IS) (https://digital.nhs.uk/child-protection-information-sharing) is a national solution (part of the NHS Spine) that connects local authority children's social care systems with those systems used within NHS unscheduled care settings.

The Provider shall ensure that the chosen clinical workflow system has the ability to query the CP-IS and alert users to the presence of a record where appropriate. Queries to the CP-IS are also reported to the responsible social care organisations to make them aware that a child has presented to the IUC service. The Provider shall work with the CP-IS programme team to establish appropriate use of CP-IS within the context of the service.

Further information on CP-IS integration requirements can be found within the UEC Interoperability and Technical Standards.

4.3.5 Primary Care/GP Records

The Provider shall ensure that health care professionals are able to access digital, detailed, primary care/GP records for all, subject to appropriate access controls. This could be expanded to include other locally held information, such as mental health and discharge information.

Note that access to primary care records is subject to governance approvals from data controllers and the provider must be able to satisfy the requirements of data controllers.

4.3.6 Regional Shared Records

Where there are close borders and complex telephony routing challenges, patients may be managed by other providers to their home providers; and it is important to ensure that patients receive the same standard of care identified within the plans agreed with the patient.

The London Care Record (LCR) provides a single, secure view of patient information and helps speed up communication between care professionals across London, and beyond and helps to inform the decisions they make about patient care. This helps to improve the safety of care and can save lives.

To ensure the security of LCR, only care providers who have completed the Data Security and Protection Toolkit (DSPT) will be given access to these records. The DSPT is an annual assessment that all Care Quality Commission (CQC) registered care providers are obliged to complete.

Note that access to regional shared records is subject to governance approvals from data controllers and the provider must be able to satisfy the requirements of data controllers.
Access to the LCR is via in-context link, which means it is controlled with role-based access in the same way as access to the person's records in the 111 EPR.

4.3.7 National Shared Records

The Provider shall ensure that the chosen clinical workflow system has the ability to interoperate with Online Digital Services as they become a more prominent piece of the IUC system. In order for Online Digital Services to complement and enhance IUC, it is essential that they provide an integrated patient journey into the rest of the IUC service.

Many Online Digital Services will perform an element of triage and/or clinical assessment before signposting or referring a patient to IUC services. The Provider shall ensure that best use is made of the information already collected by the Online Digital Service as to avoid duplication of effort and repetition for the patient.

All new contracts for IUC services will include provision to support integration and interoperation with Online Digital Services.

Further information on technical interoperability with Online Digital Services can be found in the UEC Interoperability and Technical Standards.

4.3.8 Permission to view

In situations where the patient may call one organisation then be passed to others, as part of receiving care, any information provided to patients must explain this. This includes capturing permission to view (PTV) of any records. The information provided on the original call must provide a clear and succinct explanation that sets the clear expectations for the patient on how their information will be accessed and used. When closing a call, a summary of what will happen next should include any information that will be provided.

4.4 Electronic Prescribing

Where clinically appropriate, to meet urgent need as part of a clinical assessment, provided systems shall deliver access to medicines and devices through the issuing of NHS prescriptions.

https://developer.nhs.uk/library/systems/electronic-prescription-service-eps/
https://developer.nhs.uk/library/systems/electronic-prescription-service-eps/prescribing-mvp/

The Electronic Prescribing Service (EPS) provides access to a “tracker” that can be viewed via a weblink to find out the status of an NHS prescription issued by a GP practice https://developer.nhs.uk/apis/eps-tracker/.

4.5 Post Event Messages

4.5.1 Overview

A patient's registered GP should always be notified about the clinical outcome of a patient’s encounter with a the IUC Service via a Post Event Message (PEM). This should ideally be sent at the end of a patient’s whole IUC encounter to avoid multiple messages being sent to the GP and to ensure that the GP is informed of the final outcome for that patient.

When an assessment is performed and the resulting outcome is on the Never Send List, then a PEM should not be sent regardless of where the call is taken.

4.5.2 Format

The Provider shall send PEMs using the Clinical Document Architecture (CDA) in electronic form (ITK), or whatever may supersede it in the future. A more detailed specification can be found in the UEC Interoperability and Technical Standards. For the avoidance of doubt, fax transmission is only permissible as a last resort backup and must adhere to NHS Information Governance ‘safe haven’ fax guidelines.

4.5.3 Content

The Provider shall ensure that PEM is clear, concise, and where possible articulates the primary reason for the encounter. The Provider shall ensure that the GP can interpret and possibly act based the information provided.

The PEM shall at a minimum contain:

- The presenting condition
- The disposition of the encounter (timescale/clinical urgency/clinical need)
- Service Details (where patient is referred or transferred)
- A summary of the consultation(s)
- A summary of the triage process (where applicable)
- A summary of any advice provided to the patient

A detailed description of the content and structure of the PEM can be found in the UEC Interoperability and Technical Standards.

4.5.4 When to send

The Provider shall ensure that PEMs are sent at the end of a patient's whole IUC encounter to avoid multiple messages being sent to the GP and to ensure that the GP is informed of the final outcome for that patient.

For the avoidance of doubt, where the 111 call handling service transfers the patient to a CAS/IDU a PEM does not need to be sent from the initial telephone assessment providing that a PEM will be sent at the end of the whole IUC encounter.

The Provider shall ensure that appropriate permission has been sought from the patient before sending a PEM to any recipient.

4.5.5 Recipients

For all IUC encounters (with the exception of those excluded by other criteria), the Provider shall send a PEM to the patient's registered GP practice.

In addition to this, the Provider may be required to send a PEM to other recipients where they are directly involved in the patient's care and have a legitimate need to be informed about the encounter.

If required to do so, the Provider shall send PEMs to other providers within the local IUC model or to any centrally managed repository as specified by the Commissioner.

4.6 Reporting and Performance Management

Data and metrics about the IUC Service are critical in allowing monitoring, service design and to ensure service resilience. This section outlines the requirements for data provision.

Monitoring will be undertaken through the provision of a range of performance metrics that are reported at regular, specified points. These metrics will provide management information to NHS England and the Commissioner and will allow the Provider to be held to account. Elements of this information will be published by NHS England to provide transparency and visibility.

Live telephony performance reporting to the PRM is currently provided by direct hypertext transfer protocol (http) feeds from the incumbent Avaya telephony platform to the PRM, including aggregated Service Level and Abandonment rates:

- Calls queuing.
    - Role/Skillset on calls
    - Role/Skillset available

4.6.1 Reporting Systems

The Provider shall procure reporting systems to satisfy the Commissioner's Minimum Data Set (MDS) requirements. A real-time reporting solution will also be required to service the Provider's intra-day performance management requirements.

4.6.2 Reporting and Data

It is crucial that Providers and Commissioners can effectively report on the utilisation and activity of appointment booking within IUC services in order to support both initial implementations and continuous improvement of the service and workflows.

The Provider shall ensure that it is possible to report freely on appointment booking activity from within the chosen clinical workflow system.

The Provider must be able to provide activity reporting for appointment booking within IUC services when requested, and this reporting information must be capable of being usefully aggregated across multiple providers and services where applicable.

The Provider must provide an automated data feed to the London Patient Relationship Manager capturing key performance indicators, which supports wider service resilience. This includes, but is not limited to; service level, abandonment rate, number of agents / clinicians available or taking calls and number of calls waiting.

4.6.3 Reporting and Coverage

Regular reporting of data will be required that covers the entirety of the IUC service for a Commissioner's area. Reporting will involve the provision of data to NHS England and Commissioners. Patient-level aggregate data must be available to NHS

England. The Provider must ensure that information is provided to meet the requirements outlined in this Service Specification.

The IUC service is enabled by information sharing and flow. These principles must be continued into the supply of data. Any sub-contracted providers shall share and provide information about their service to the Provider, who will be the lead supplier of data and information to the Commissioner. The lead supplier will collate and coordinate requests for data and information that covers the commissioned IUC Service. This will ensure that, in multi-provider areas, there are clear responsibilities on the collation and supply of data to NHS England, and across services and their commissioners.

4.6.4 IUC Aggregated Data Collection

The Provider must ensure the data required to populate the IUC Aggregated Data Collection (ADC) is collected and reported. The IUC ADC is an adaptation of the NHS 111 Minimum Data Set (MDS) and has been specified in close collaboration with providers and commissioners. The IUC ADC forms the minimum level of data provision to NHS England for performance monitoring.

The details of the IUC ADC are published in supplemental document(s). These document(s) may be subject to review and change as the service evolves to meet the needs of patients. The Provider must ensure data complies with the specification outlined in the latest versions of these documents.

Development work will continue to create and set system-wide metrics responsible for tracking patient outcomes as well as service performance. The Provider shall comply with these metrics once agreed.

4.6.5 Data Submissions

The Provider must ensure that data submissions are made using the mechanisms specified and the deadlines outlined in the Service Specification, supplementary document(s) or direct requests. This may be in the form of patient-level data that flows to NHS England, or via aggregate forms. The Provider must ensure they supply data at the frequency and quality required to comply with local and National requests. The Commissioner shall link the timely provision of data to commensurate service credits within the contract.

4.6.6 Disposition and Outcome Monitoring

A key element of understanding the performance of the service and its wider benefit on the health service is the disposition and outcome monitoring. Understanding will be provided through regular performance monitoring and periodic evaluations undertaken by NHS England. This work will be underpinned by information on the

call outcome, or disposition and the patient outcome and impact on the wider health service. This information must be captured in line with guidance provided by NHS England, whether that is within the IUC ADC, or evaluation specific guidance.

4.6.7 Staff and Patient Feedback and Surveys

Patient feedback is a fundamental part of understanding the performance of the IUC Service. It allows the Patient's experience of the Service to inform service design and modification.

The Provider must ensure a regular patient survey is undertaken for each area to capture patients' feedback, which aligns with the agreed pan London IUC patient experience survey question set.
The IUC ADC outlines the frequency of collection, prescribes question wording for the national mandatory questions and methodology. The Provider must ensure that Services are contracted to meet the requirements outlined in the IUC ADC for patient surveys. By following this prescribed information, the Commissioner and NHS England will have comparable data on which to compare performance between areas.

4.6.8 Staff and Financial Metrics

In order to allow the Commissioner and NHS England to understand the value for money, efficiency and effectiveness of the IUC service, the Provider shall share financial inputs and staff models. Staff and financial information are also required by NHS England for service design purposes. The Provider must ensure that the information available aligns with the requirements outlined in the IUC ADC and is supplied at the frequency to meet these needs. Any staff or financial information that is commercially sensitive, and that is supplied to NHS England, will not be publicly disclosed, unless required otherwise by the information commissioner.

4.6.9 Syndromic Surveillance

Syndromic surveillance is the process of collecting, analysing and interpreting health-related data to provide an early warning of human or veterinary public health threats, which require public health action.

The Public Health England (PHE) real-time surveillance team (ReSST) coordinates several syndromic systems collecting and analysing health data from several sources.

The Provider shall ensure that the relevant data feeds are established to support syndromic surveillance in IUC and that the relevant data sharing agreements are put in place.

4.6.10 London Reporting

One of the features of the Patient Relationship Manager is an interactive dashboard which supports system resilience and provides visibility of trends and surges across services, including but not limited to specific symptom groups for conditions such as Flu or Norovirus, enabling responsive and proactive mitigation action. For each IUC encounter, the Provider shall send a PEM to the London Patient Relationship Manager which aligns with the London IUC PEM Dataset. This should not include patient identifiable data but should support London outcome monitoring and the real time reporting dashboard.

4.6.10.1 IUC PEM data submission

There is a requirement for the Provider and the Providers system supplier used by the provider to work with the London regional team to install and maintain timely upgrades to the London PRM IUC PEM and Dental PEM reporting systems. Data is configured to be transmitted daily via Secure File Transfer Protocol (SFTP) to the PRM where it is utilised for regional reporting.

4.6.10.2 London Patient PEM

The London Region Patient PEM is functionality developed with the London PRM. It is required that the Provider and the system used by the provider is capable of working with the London PRM and the regional team to initially install and then maintain timely upgrades to the Patient PEM functionality. This requires data on qualifying cases to be sent in a near real time manner to the London PRM which then applies rules and filters and delivers SMS information to the patient. Data is delivered to the PRM via SFTP.

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