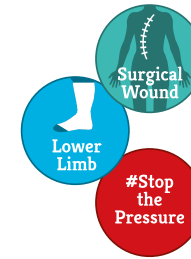# Wound Management Digital Systems

Functional Overview

National Wound Care Strategy Programme
Excellence. Every Patient. Every Time.

This Wound Management Digital Systems Functional Overview is now available for use in the NHS.

The National Wound Care Strategy Programme (NWCSP) has identified the need to improve data and information to support clinical decision making and enable quality improvement. It recommends the use of point of care, NHS compliant digital technology.

The Digital, Data and Information workstream has worked closely with industry and NHS stakeholders, through a series of consultations during 2020 and 2021 to develop the notion of Wound Management Digital Systems (WMDS). This document describes at high level the functions of WMDS and suggests whether each function should be considered essential or desirable.

This WMDS Functional Overview has been developed to help NHS and Industry colleagues have a shared view of 'what good looks like' with regards WMDS functionality. It provides a development roadmap for suppliers whose products are yet to meet all of the suggested essential features.

It will support NHS colleagues who choose to use it as a basis to develop local procurement templates to enable them to evaluate the strengths and weaknesses of different products.

It provides a development pathway for WMDS suppliers by making clear the expectations of the NHS.

The Digital, Data and Information workstream will now use this Functional Overview to develop a Wound Management Digital Systems Procurement Evaluation Template that NHS providers can use when considering purchasing such systems.

This Functional Overview is not intended to be an exhaustive list of all the technical and data requirements. It does not replace existing NHS approval routes for digital technologies and will be subject to updating periodically as NHS experience and market development occur.

Wound Management Digital Systems Functional Overview

Section 1: Underpinning principles for any Wound Management Digital System (WMDS)	
The Wound Management Digital System (WMDS) should provide a single long-term record of all events in community and hospital care environments	Essential
The use of a Wound Management Digital System (WMDS) should reduce administrative load	Essential
The Wound Management Digital System (WMDS) should support live access to records and care plans	Essential
The Wound Management Digital System (WMDS) should be intuitive and convenient for staff to use	Essential
The Wound Management Digital System (WMDS) should be robust and reliable (i.e., available to use and input data all the time)	Essential
The Wound Management Digital System (WMDS) should have low installation and update burden (e.g., the system automatically updates the next time a user logs in)	Essential
The Wound Management Digital System (WMDS) supplier will provide staff with support (e.g., training) to use their system	Essential
Users should be able to customise the system to develop local indicators/reports	Desirable
The Wound Management Digital System (WMDS) supports and can contribute to the creation of a national image repository to support Artificial Intelligence (AI) development	Desirable
Section 2a: Technical NHS Requirements	
Utilises the single NHS staff identifier (NHS passport compliant), where available or applicable	Desirable
Is compliant with relevant NHS Digital and NICE Digital Standards	Essential
Allows the full use of SNOMED CT terminology (SNOMED is a structured clinical vocabulary that will be used in the NHS electronic health record)	Essential
Provides NHSD accredited cloud-based storage	Essential
Interoperates (both ways) with the hospital electronic patient records (PAS & EPR) and any legacy note systems	Desirable
Allows flow, via local electronic patient record systems, into the NHS Digital National data collections, e.g., Hospital Episode Statistics (HES) and Community Services Data Set (CSDS)	Desirable
Capable of interoperability with other health and social care data systems	Desirable

Interoperates (both ways) with community and GP systems: (e.g., EMIS, Vision, SystmOne + document management systems)	Essential
Interoperates (both ways) with the NHS E-referral Service (the NHS Digital GP referral system)	Essential
Works with existing primary care and community services electronic patient records and templates	Essential
Works with rather than duplicates hospital to community referral processes	Essential

Section 2b: Measurement of staff activity, product use and other items relevant to wound care

Capable of providing an audit log of clinicians' adherence to treatment guidelines that have been embedded in the system	Desirable
Capable of providing an audit log of patients' adherence to clinicians' advice and guidance as recorded in the patient record	Desirable
Capable of gathering all mandated NHS community data requirements (for example CQUIN data)	Desirable
Capable of measuring the average number of patient contacts per clinician per day	Desirable
Capable of measuring the data quality and completeness of electronic patient records	Desirable

Section 2c: Cyber security

Contains security controls for remote access users including use of cryptographic techniques & supports 2-factor authentication, supports single sign on where applicable or uses local Active Directory (AD) authentication as one of the two sign in parts	Essential
Is able to protect the confidentiality, authenticity and integrity of information by cryptographic means.	Essential
Allows any data flowing to and from other health systems and their servers to be encrypted end to end and at rest.	Essential
Is able to retain previous versions of the patient record for audit purposes	Essential
Does not contain any features which prevent any organisation from being fully compliant with the requirements of all UK legislation and professional obligations	Essential
Network access controls. Input data validation and correction procedures. User/time/date stamp for any modifications to data.	Essential

Section 3a: Functionality for clinicians

Ability to record care of multiple wounds (types and locations) on one person	Essential
Ability to monitor the adherence to the local formulary	Desirable
Allows remote working via a tablet, smartphone or laptop	Essential
Be able to work in real time (on line) and also able to work off line with subsequent data upload	Essential

Allows both high level and more detailed viewing (based on user security level)	Essential
Ability to view and update patient records and wound care plan	Essential
Ability to record patient demographics, relevant medical history and social circumstances	Essential
Ability to record wound assessments and key clinical data	Essential
Ability to record treatment plan (including wound care products)	Essential
No patient record locking when two users attempt to access the exact same record (the latter user should have read only as a minimum and see who has opened the record first).	Essential
Allows for flags, prompts and alerts to be inserted in line with agreed clinical treatment pathways	Essential
Access to Advice and Guidance - e.g., local clinical pathways, formulary and access to online resources	Desirable
Ability to make multiple referrals to more than one health and care professional	Essential
Capability of communicating securely with other professionals	Essential
Level of access is in line with level of role and responsibilities (as per registration authority (RA) rules)	Essential
Capable of providing an audit trail for all user activity	Essential
Capable of operating a video consultation call	Desirable
Enable patient or carer participation in care by providing them with access to their record to allow the updating of information and the addition of relevant images	Desirable
Section 3b: Linkage to the data systems of other health and care providers	
Enables a seamless interface with local health and care records (across the organisations in the system)	Essential
Enables pathology ordering and reporting	Desirable
Enables link to local systems for ordering wound care products, e.g.; local pharmacy systems	Desirable
Enables interface working with incident reporting systems	Essential
Enables linkage with on-line (non-prescription) ordering systems	Desirable

Section 3c: Patient details

The patient's NHS Number	Essential
The patient's name	Essential
The patient's date of birth (DoB)	Essential
The patient's gender	Essential
The patient's ethnicity	Desirable
The patient's postcode	Essential
The commissioning organisation for that patient's care	Essential
Clinical teams, e.g., podiatry	Essential
The site /base of the clinical team providing clinical care e.g., Old Town Health Centre	Essential

Section 3d: Wound information

Can record co-morbidities	Essential
Can record patient medications	Essential
Can record type of wound e.g., pressure ulcer	Essential
For pressure ulcers, the category of pressure damage can be recorded	Essential
Wound location can be mapped	Essential
Provides a virtual 3-dimensional body map for mapping wound location	Desirable
Allows capture and storage of a digital wound image	Essential
Enables clinicians to measure and record the width and length of a wound in a consistent and calibrated way	Essential
Enables clinicians to automatically measure and record the width and length of a wound from a digital wound image	Desirable
Can record wound depth	Desirable
Can automatically record wound depth from a digital wound image	Desirable
Can record % areas of different tissue type (e.g., epithelial, granulation etc.)	Essential

Can automatically record % areas of different tissue type (e.g., epithelial, granulation etc.) from a digital wound image	Desirable
Can record dimensions and position of any tunnelling, undermining etc	Essential
Can record wound specific characteristics, e.g. tunnelling, undermining	Essential
Can record detail about the wound edge (e.g., diffuse, well defined or rolled)	Essential
Can record exudate type	Essential
Can record detail about surrounding skin	Essential
Can record exudate colour	Essential
Can record exudate level	Essential
Can record odour	Essential
Can record ABPI ('Doppler') readings for both legs	Essential
Enables clinicians to measure and record phases and pressures as part of a baseline arterial assessment	Desirable
Enables clinicians to measure and record Toe Brachial Pressure Index (TBPI)	Desirable
Can record when specimens (e.g., wound swabs) are sent for analysis	Essential
Can log specimen reports and generate a clinician alert report	Desirable
Can record pain level	Essential
Can record episodes of pain e.g., pain diary	Desirable
Can record signs of infection	Desirable
Can record causative infective agent e.g., MRSA	Desirable
Allows treatment objectives to be recorded	Essential
Requires selection of a treatment code (e.g., READ or SNOMED CT) to record treatment provided.	Desirable
Can record cleansing agent used	Essential
Can record dressings products used	Essential
Can record dressing change frequency	Essential
Can record wound progress by e.g., improving, deteriorating, static, healed)	Essential
Can automatically record wound progress based on wound dimension data	Desirable