

Ultramed[®]

Ultraprep[®] Product Specification

September 2025



Overview

The Ultraprep pre-procedure assessment system provides cloud-hosted patient questionnaires and a clinical portal. The patient questionnaire and some features of the clinical portal can be customised for your Trust or hospital. This includes the online patient questionnaire, your preoperative assessment workflow and the weblinks providing patient information. The system is DTAC, NHS DSP toolkit, DCB0129, ISO27001 and Cyber Essentials + compliant and registered as a Medical Device with the MHRA reference number 6625.

Products

Available pre-procedure assessment products in the Ultramed suite:

- MyPreOp® - Preoperative
- MyEndo® - Endoscopy
- MyPreOp® LA - Ophthalmology
- MyPreOp® LA - Generic
- MyPreOp® Kids - Paediatrics
- MyCardio™ - Cardiology
- MyIR®- Interventional Radiology
- MyMRI® - Patient Safety Assessment

The Ultramed system can be adapted to alternative areas, please get in touch if you are interested in discussing this option further.

Workflow

The invitation for the patient to complete their pre-procedure assessment questionnaire is created in the clinical portal. Patient demographics are pulled into the Ultraprep system from the Trust or hospital's PAS. The sending of the questionnaire can be fully automated and triggered when a decision to treat is made. When the patient submits their information, this is reviewed in the clinical portal.

The portal has 6 folders:

- **'Needs attention'** - patients from all folders that require attention are shown in this folder.
- **'Not started'** - patients who have been added to the system, and/or been invited, by SMS or email, to complete the questionnaire are listed. Automatic daily reminders are sent each day for 3 days after the initial invite if the patient has not submitted their information. This helps to achieve high completion rates and satisfaction scores. Patients stay in this folder until manually moved to 'in progress'.
- **'In Progress'** - this folder holds the list of patients who are progressing through the POA review. As they progress through, 'tags' can be applied such

as 'awaiting tests' or 'nurse f2f'.

- **'Completed'** - when the patient is 'tagged' as 'approved for procedure' they can be moved to the Completed folder. Here the list of patients includes their TCI date, consultant surgeon and surgical priority (for MyPreOp) if these were entered initially when the patient was invited or have been subsequently added. This facilitates efficient theatre list booking by being able to filter for patients under the care of a particular surgeon who are 'approved for operation' but do not yet have a TCI date.
- **'Archived'** - when their procedure date has passed, patients can be moved to the archived folder.
- **'Bin'** - patient assessments can be moved to bin, for example if they were entered in error or cancelled.

Patient questionnaire

Patients are invited to complete the questionnaire by SMS or email. Patients receive a unique access code in the invite and confirm their date of birth to get started.

The pre-procedure assessment questionnaires have been designed to work on mobile, desktop, and tablet, depending on patient preference. Our patient questionnaires are fully compliant with the [Web Content Accessibility Guidelines version 2.1](#) AA standard, and have been externally audited and tested in collaboration with the RNIB. This helps to ensure everyone is able to access and complete the online questionnaire, minimising digital exclusion.

The questionnaires contains sections such as 'My Heart' and 'My Lungs'.

The questions use a branching structure which begins with an initial screening set of questions and then, depending on the response, additional questions are presented to the patient. Triggered by the patient responses are:

- ASA grade, risks scores that are applicable to the particular product in the Ultraprep suite.
- Suggested tasks such as blood tests, ECG or other investigations.
- Other actions such as suggesting putting a diabetic patient first on the operating list.

The question sets have been developed over the last 5 years with the input of multiple clinical teams and clinicians with particular expertise in different subject areas. The algorithms are kept up to date by clinicians identifying updates in clinical practice or national guidance which can then rapidly be built into the Ultraprep system. An example of this is the NPSA safety alert about perioperative steroids which has successfully been built into MyPreOp to improve safety and regulatory compliance with the alert.

Extensive patient information is provided throughout the questionnaire using weblinks. This provides information about their perioperative journey and their existing health conditions.

Completing the questionnaire online allows patients time to read and understand the questions being asked in order to provide the most accurate information they can supply. The time taken for the patient to complete their form is recorded in the system. Questions, triggered actions and weblinks can be customised. This means questions can be removed, altered or new questions can be added along with suggested tasks such as echocardiogram. As the branching clinical algorithms that power Ultraprep have been developed collaboratively with Trusts, it is recommended that minimal customisation is requested until the system is fully operational.

Approximately 15% of patients have help in completing the questionnaire from family or friends which is also recorded in the system. If the patient cannot submit the form, then a 'clinician code' can be created which sets up the patient on the Ultraprep system for a health care assistant or clinician to input the patient data. This supports patients who cannot complete the online form for technology, disability or language reasons. 'In-person codes' can also be created for patients completing their assessments in person at the hospital using either their own or hospital provided devices, offering further support options to those who may not have access to their own devices, or who may not have access to reliable internet connections at home.

Clinician review

The Ultraprep system collates the patient data into clear and transparent workflow categories. The system uses folders 'needs attention', 'not started', 'in progress', 'complete'. At a more granular level tags are used to flag the stage the patient is at

in the pre-procedure assessment process e.g. 'awaiting tests', 'refer to the anaesthetist'. Filters can be used to identify all patients with a particular tag. This gives visibility to other members of the clinical team of actions and activities that require attention. An example would be 'pharmacy review' which then expedites clinical decisions and queries related to the patient's medications. When the pharmacist enters the system they can filter for patients tagged for 'pharmacy review' to produce a workflow for them which can be filtered by TCI and/or priority so the most urgent patients can be reviewed first. Patients can also be assigned to individual clinicians which means a workflow for each clinician can be generated e.g. for a preop assessment nurse.

Ultraprep provides standard clinical assessments such as the Rockwood frailty score, ASA grade and review of co-morbidities. It allows customisation of triggers for diagnostic investigations or risk assessments and presents this information in a task list for the reviewing clinician to act upon.

The Clinical Summary Report is split into two parts, the first part is a summary of the most important information, along with the key indicators, such as ASA grade and co-morbidities. The second part is every answer the patient has given. The first action for the clinician is to review the information provided by the patient. When compared with the information held on the EPR or in the paper notes, is the information from the patient complete and accurate?

The second action is to work through the suggested 'tasks' such as specific blood tests, referrals or other actions such as ECG. There is a clinical noting section which can also be customised.

Each patient has a timeline attached to their assessment which will keep track of any tag or assignment change, clinicians are also able to add comments to the timeline.

When the pre-procedure assessment is completed a Clinical Summary Report is produced that pulls together the patient entered information, clinical notes and the outcome of the suggested tasks such as blood test results. This report is focused on the needs of the clinical team on the day of the procedure and is exported automatically into the EPR or EDMS. If required, it can be printed. The format of the final report has been developed in collaboration with clinicians.

Direct Patient Messaging

Direct messages can be sent from Clinicians to Patients through the system by SMS or email. Similarly to the way patients receive invites, when sent a message they receive a unique access code and confirm their date of birth to view the message.

Message templates can be created and reused to ensure quick and consistent messaging to patients at key stages throughout the journey. These can contain information that is later automatically sent out to patients.

Messages can be created and scheduled to be sent at a later time, either based on a specific date, or in relation to when a patient submits their assessment, or based on their TCI date. For example, you can schedule the same reminder message to be sent to patients 3 days before they are due to come in for their procedure.

Patient and Clinician Support

Ultramed provides comprehensive patient and clinician support. Our team assists with account management, implementation, training, and ongoing support.

Ultramed benefits from an enterprise-level online help desk platform through which patients and

clinicians can contact the team for support by email, phone or webchat:

<https://www.ultramed.co/patienthelp> .

This level of support is essential to help patients and clinicians with technical issues. Patients who need clinical advice or support are referred back to their hospital team. Providing high-quality support maximises the number of patients who can complete and submit the questionnaire.

Integration

The Ultraprep system is cloud-hosted. Data is coded with SNOMED CT and ICD 10 codes where appropriate. The system integrates with PAS demographics and electronic document management systems. Our demographic interface supports demographic querying via HL7 v2.4 QBP_Q21 or QRY_A19 messages. Our document interface supports HL7 v2.4 MDM_T02. To facilitate integration, Ultramed requires software to be installed on Trust servers to allow a secure

connection between the Trust and Ultramed. The minimum requirements are two Windows Server 2016 instances with outgoing internet connections with our integration domains whitelisted. We do not require incoming internet connections or firewall rules.

Business Intelligence

All Ultraprep products include an enterprise-level self-service Business Intelligence platform. This service allows your teams to easily build their own reports or carry out complex data analytics as needed. To help get you started, we provide a default set of operational reports that are set to be automatically emailed to relevant users. Examples of useful metrics include the number of patients per week or month, the average time taken by patients to complete the questionnaire, the average time for the pre-procedure assessment team to review the assessments, the outcomes of the review and the stage of progression for the patient. Full data export into Trust's data warehouse can also be provided. One licence is included as standard and additional logins can be provided at an additional cost.