

EMR Interfaces

Overview

Xtract Solutions systems have the ability to interface with your EMR/EHR. This allows you to receive and view patient information from the Xtract Solutions systems directly on your EMR/EHR, giving you a full picture of your patient's health.

Interfacing also allows for reporting, updating of patient demographic information, billing of charges, and additional information to be shared between the two systems, increasing your clinician's productivity and allowing for an efficient transfer of information.

The methods that these interfaces are configured are listed below with full details into the process and additional options within each messaging system.

ADT (Patient Demographics and Visits)

ADT (Admit Discharge Transfer) messages are sent from the EMR or Practice Management system to Xtract Solutions. The ADT feed is typically filtered down to a **specific clinic, specific provider(s)**, and/or for a **specific visit type**.

Once the list has been filtered, the following steps are put into action.



Functional testing

Once the ADT feed is up and running, Xtract and Customer will perform functional testing to confirm messages are being received successfully.

3-6 month replay

A replay of the last several months of relevant ADT messages is used to backfill the Xtract database with allergy patient demographics.

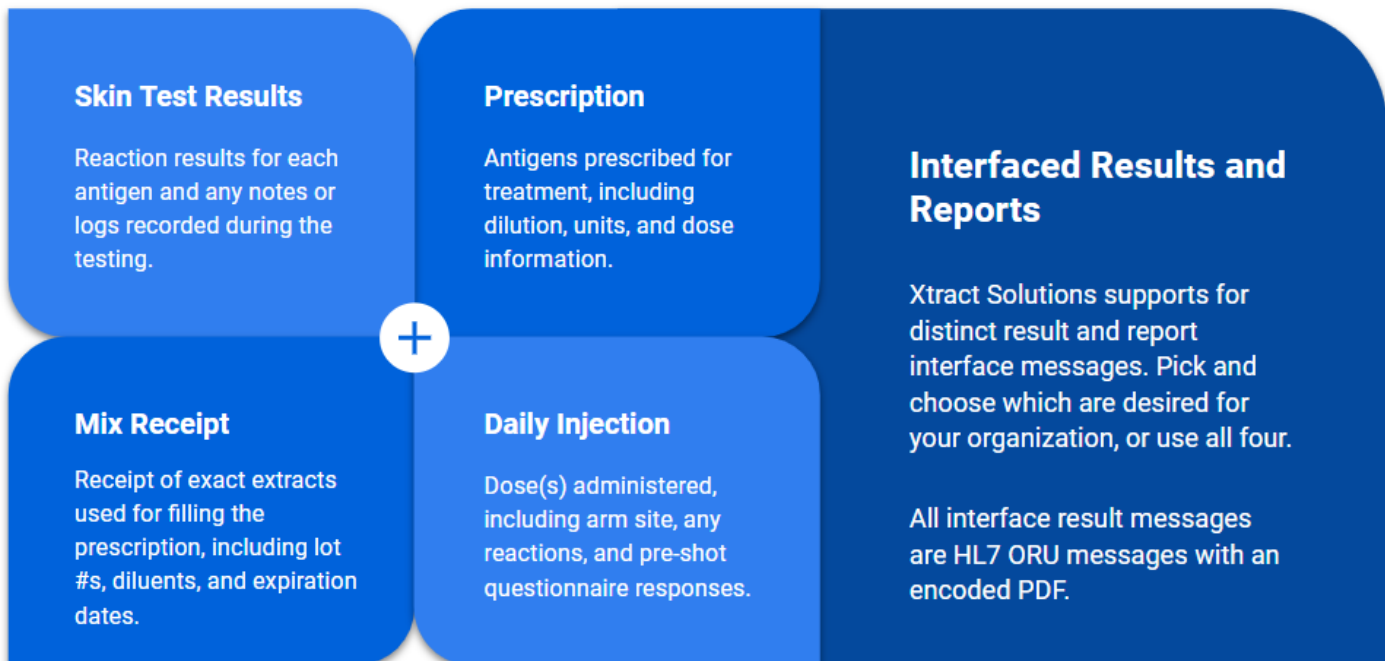
Trigger events

Once the ADT feed is live, new messages should be triggered to send automatically. The trigger is typically when a patient is added to the appropriate schedule but may vary across organizations.

Outbound Results (ORU)

Outbound results are triggered to send when an end-user clicks a “send report” button. These reports are typically sent as an ORU message with a base64 MIME encoded PDF and formatted text but can also be pared down to just the PDF or into discrete fields for aliasing/data mapping.

There are four places where an outbound message can be generated and interfaced:



These messages can be sent as flat files or to a TCP/IP endpoint. The most common way we see these filed in the EMR is in the Procedures tab under Chart Review (or equivalent) but this is an open discussion point to be had during the Design phase of the project.

DFT Message (Billing Capture)

A billing dialog allows end-users to send charge captures via an interface to the EMR or PM application. The procedure (CPT) and diagnosis (ICD-10) codes are configured in the system for each appropriate billing event.

Xtract Solutions as a Standalone system

Approximately 50% of Xtract Solutions customers use our allergy Immunotherapy software as a standalone system. Typical reasons a client may decline to add the interface:

1. Providers are very active in the immunotherapy operations of their office and prefer to interact with the IT summary as structured directly in the Xtract application.
2. Providers can access the Xtract app anywhere in the clinic and don't see the cost/benefit ratio justifying the time cost and complexity of interfaces.
3. Clinics have efficient workflows for adding documentation to patients (eg. EMR 'drag and drop') meaning it can sometimes be 'easier' to push documentation when un-interfaced than interfaced.
4. There is an urgency to implement a system and the IT and implementation burden of interfacing is unacceptable. In these cases plans can be made to ease an interface into production once it's available.
5. All documents can be generated at any time from Xtract if provision of paper or digital reporting is required, and therefore a real time interface is deemed unnecessary.

The section below outlines the typical workflow clients utilize that forgo the various interfaces.

ADT (Patient Demographics and Visits)

When a client forgoes the ADT (Patient Demographics) Interface patient information including name, DOB, and MRN still need to get into the Xtract database somehow. There are really two alternatives: Manual entry by a staff member or a one-time data upload from the PM/EMR database or patient spreadsheet, with manual entry for any new patients thereafter.

Manual entry is only required once because once that patient has been created in the system they will be searchable and selectable going forward.

A potential risk adding interfaces later are duplicate patient accounts created once the ADT is turned on. If the initial entry of the demographics is not identical to the information and formatting that comes across on the ADT, duplicates will occur and the database will require maintenance and support to clean it up.

The demographic interface is REQUIRED to make any outbound interfaces viable. When Xtract receives a demographic message from the EHR, it includes encoded segments (eg. PV1) which have specific coding that the EHR requires back from Xtract in order to authenticate and accurately identify the patient it belongs to. This visit information is critical in determining the destination of where the reports and billing information will go.

Outbound Results (ORU)

If the outbound results (ORU) interface is not in scope for the project, but the client still wishes to make viewable in the EMR the various reports for skin testing, prescription order, mixing receipt, and injection history, there are a few options. The first is to automatically have the PDFs generated when each of the above activities have been completed and then attach the PDFs into the individual patient charts manually. This can take various forms including but not limited to: direct upload file capability (if available through the EMR), manual generation of visit notes, automated scanning of documents (if available through the EHR). If no such functions are available, several clients print the completed reports and place in a scan folder to be uploaded by the department that manages that activity.

There are several clients that have decided that since the information is available in Xtract Solutions and the PDF documents can be recreated on demand at any time that they don't need to upload the documents into the EMR at all. Others have concluded that having these reports available in the EMR is important because the belief is that the complete record should be stored there for not only data integrity but also the requirements necessary for their billing process.

DFT Message (Billing Capture)

Probably the least utilized interface by Xtract Solutions customers can also be the most important for some. For the clients that forgo this interface, the end user after completing a skin test, vial mix, or patient injection in Xtract Solutions must remember to go into the EMR/PM system and bill these events manually. If the end users don't follow the correct procedural steps, there is a significant risk of lost revenue.

However, in the case where the nursing staff are completely segregated from the billing process, the above may not be a relevant concern and a billing interface less vital. In these cases, it is suggested that billing staff be given access to Xtract Solutions reports so they can generate lists of patients that have had skin testing, mixes, or injections given to audit against the records they have through their EMR/PM.

For some clients, the billing process after mixing patient treatment sets requires a manual step of creating a "fake" encounter since this activity is typically performed when the patient is not present at a visit (though in some cases the EMR interface team can eliminate this manual process).