Notes on Order Sets

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# Order sets, order groups, protocols

## Order

### Definition: a single complete order for a medication, lab test or lab panel, blood product, diet, IV fluid, monitoring, etc.

## Order session

### Definition: one or more orders entered by one clinician at roughly the same time, and confirmed together with a single confirm button or signature action.

### In an order session, the clinician enters one order or one order set, and then repeats until the clinician decides to confirm or sign all of the orders.

### Any order already entered in a session can be removed or changed freely before the session is confirmed. Only the orderer sees this process.

### After confirming, all of the orders are posted for the nurse, pharmacist, etc.

### Once the order session is confirmed, other persons such as the nurse can see the confirmed orders.

### Once the order session is confirmed, an order cannot be removed – another order must be written to discontinue or change it.

### \*\*Whether one order is entered before or after another in a session does not have any meaning. If two or more orders are expected to be performed in a particular sequence, such as one medication immediately followed by another one, then that sequence should be specified in the Start Time field.

## Order set

### Definition: a collection of orders that is presented to the clinician at one time during an order session.

### Each order in the set can be selected or deselected by the clinician. (Optional: depending on the type of each order, certain parameters of each order can be edited.)

### When the clinician completes the selection or deselection process (by clicking “Go” or similar), all of the selected orders are added to the current order session.

### Order sets are recorded in advance – typically, by running through a pretend order session, with the output stored as a named order set instead of the output being stored in a specific patient’s record

### A clinician can select any order set in the library and “play” it, thus entering all selected orders into the patient’s record.

### The end result is identical if the orderer adds, say, three orders by using an order set, or if the orderer adds the same three orders individually.

#### \*\*It is reasonable to keep track of when actual order(s) written for a patient came from an order set. That can be part of the order object in the patient’s record, e.g., Boolean order.usedSet, string order.setName (or integer order.setIndex)

## Protocol

### Definition: a collection of orders that are designed to be run over several minutes, hours or days; typically used for a chemotherapy protocol, a clinical pathway, or a carefully planned sequence of medications or IV fluids.

### \*\*The wiki page description of an order set implies that it usually refers to protocols – the orders have offset start times, and their actual start times are expected to be set relative to the start time of the whole unit. This is an incorrect use of the word order set; this is describing a protocol.

### Fields such as “relativeStartDay” can actually be filled in the StartTime field

## Order group

### This is not a commonly used term. In the wiki page, it appears to describe one cyclic iteration of a protocol. It is probably confusing and not appropriate to call this an order group; in clinical terms this would be known as a “cycle”.

# Parent order fields

## Definition

### Fields needed for any order, important for enter/edit/fulfillment functions, independent of the type of order

## Elements of the parent order object

There is some OpenMRS design discussion on these already, from spring 2015.

In general, these are elements that are specific to an \*instance\* of entering an order, and they are filled in at the time the order is entered, edited or confirmed.

They are independent of the type of order. Besides this parent structure, each type of order has its own set of fields to clarify the order. For example, medication orders have strength, form, dose, frequency, PRN field, and so on

### Order number/index

### Session number/index (or just a one-way link from the session to the order)

### Special instructions (more accurately, special instructions are part of the order structure for each order type)

### \*Clinician who entered it

### Date/time entered

### \*Date/time confirmed

### \*Date/time cosigned

### Start Time field 🡨 This is where we can enter sequence

### Date/time stopped

### Reason stopped

### Clinician who stopped it

### Index of order this replaced

### Index of order that replaced this

#### (Fields 11 and 12 are for tracking; they are optional but useful)

# Start time field

### Usually one of several ordinals such as NOW, STAT, In the AM

### Can be a specific time or date/time

### Can be relative to another event (n MINUTES AFTER order ###)

### We can elaborate further on this for special cases