

THE INDIAN HEALTH SERVICE

RPMS EHR CAC Review



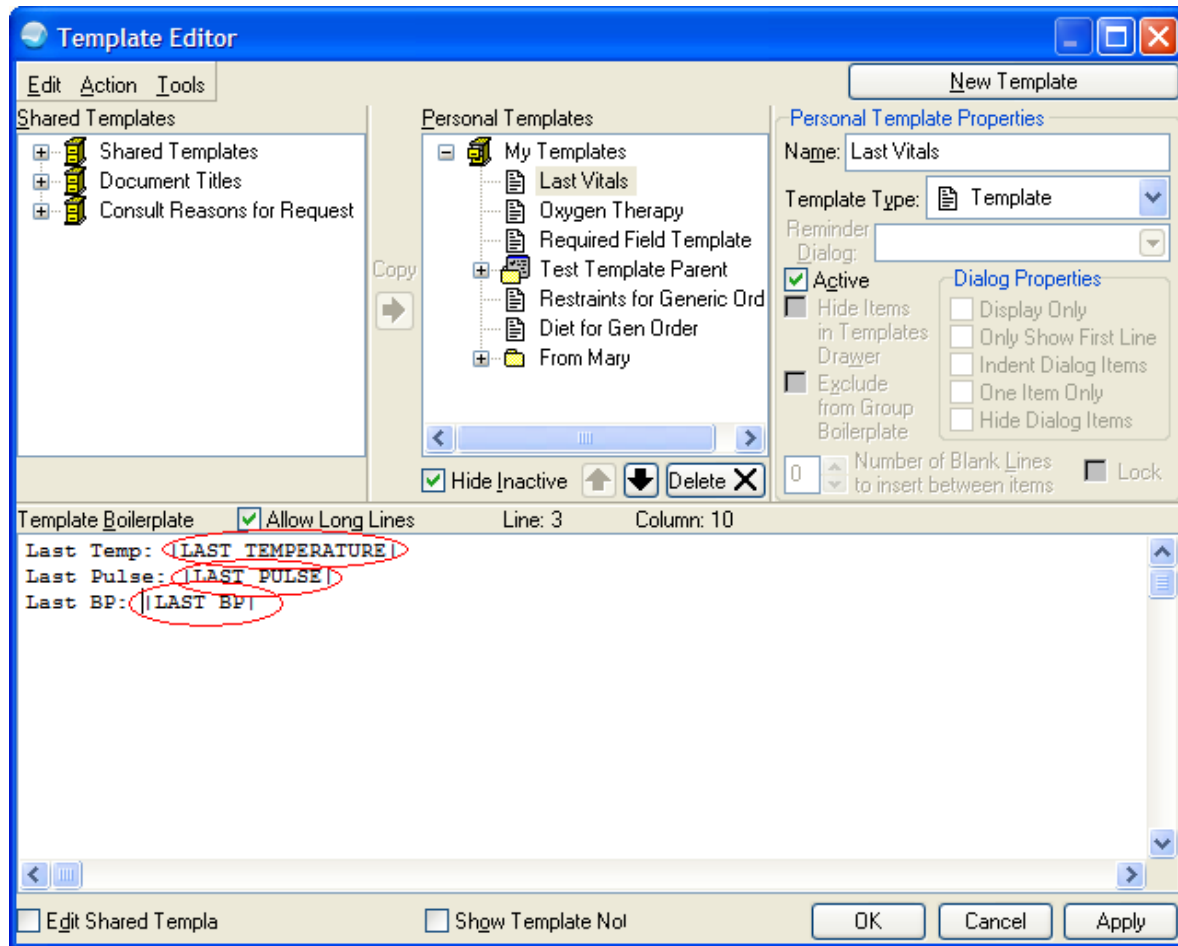
TIU Data Objects

Superior Health Information Management
Now and for the Future

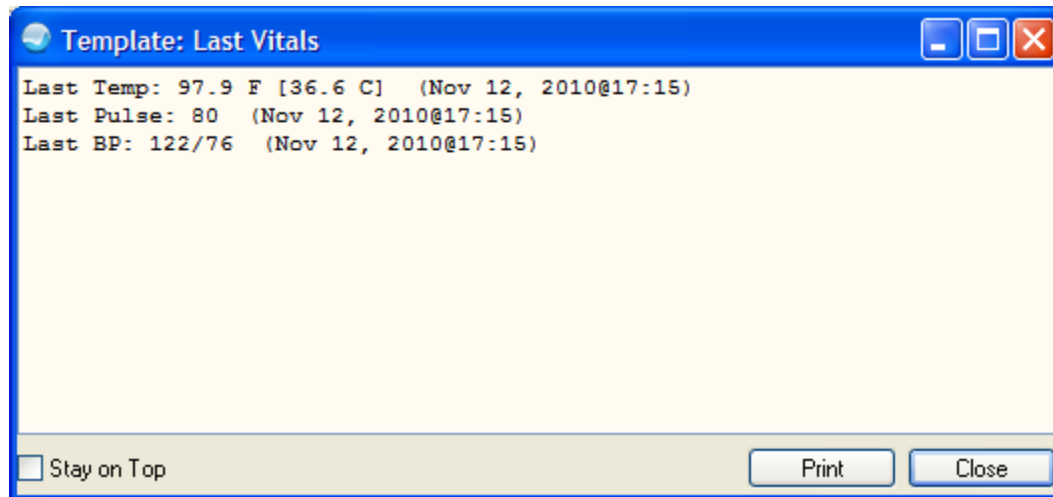
Learning Objectives

- Create TIU Data Objects that can be used in TIU Templates to reduce double entry of data by end-users:
 - Data object creation via copy
 - Data object creation via Health Summary

Data Objects in Templates



Data Objects in Templates (Output)



Data Object Creation

Method #1 via Copy:

- Creation of data objects using copy only works if underlying routines are already in place to allow for this action.
- New Object Methods and Routines are only added via new TIU Patches.

Data Object Creation

- Some Currently available Prototypes for Copying:

```
LAST # LAB TEST (NAME ONLY)
LAST # LAB TEST (SAMPLE)
LAST # VITAL SIGN (NAME ONLY)
LAST # VITAL SIGN (SAMPLE)
LAST EXAM - SAMPLE
LAST HEALTH FACTOR - SAMPLE
LAST HF CATEGORY - SAMPLE
LAST HT WITH CAPTION
LAST HT WITH DATE
LAST LAB PANEL (SAMPLE)
LAST LAB TEST (BRIEF)
LAST LAB TEST (NO CAP)
LAST LAB TEST (SAMPLE)
LAST LAB TEST DATE (SAMPLE)
LAST MED (SAMPLE)
LAST MED CLASS (SAMPLE) LAST
PROCEDURE DATE - SAMPLE
```

Data Object Creation

- You may copy an existing data object and edit it to create a new object of the same type. (e.g. copy LAST BP to create a new data object of any measurement, or copy LAST LAB CALCIUM to create a new data object for potassium, etc.).
- In order to create a new data object via copy, you must have Programmer Mode access to be allowed to edit the Technical Fields Object Description.
- Copied objects are Inactive upon creation and must be activated using the BASICS command.

Data Object Creation - Method #1

Copy existing data object:

TIU > HIS > TMM > DDM > DDM4

1. Locate the prototype data object to be copied using the `FIND` command in the Objects editor.
2. Copy the prototype data object to a new name.
3. Edit the newly created data object so that the Technical Field Object Method points to the correct item).

(e.g. create `LAST LAB AST` by copying the current object `LAST LAB ALT`)

Method #1 (cont.)

Cache TRM:4712

File Edit Help

Objects Mar 14, 2011 13:30:04 Page: 7 of 20

Objects

| | | Status |
|-----|----------------------|--------|
| + | | |
| 97 | LAST HT WITH CAPTION | A |
| 98 | LAST HT WITH DATE | A |
| 99 | LAST LAB ALT | A |
| 100 | LAST LAB CBC | A |
| 101 | LAST LAB CHEM7 | A |
| 102 | LAST LAB CREATININE | A |
| 103 | LAST LAB DATE CHOL | A |
| 104 | LAST LAB GLUCOSE | A |
| 105 | LAST LAB HCT | I |
| 106 | LAST LAB HEMATOCRIT | A |
| 107 | LAST LAB HEMOGLOBIN | A |
| 108 | LAST LAB HGB-LAST 4 | A |
| 109 | LAST LAB HGBA1C | A |
| 110 | LAST LAB HGBA1C 2 | A |

+ ?Help >ScrollRight PS/PL PrintScr/List +/- >>>

Find Detailed Display/Edit Copy/Move

Change View Try Quit

Create Owner

Select Action: Next Screen// █

Method #1 (cont.)

```
Select Action: Next Screen// COPY    Copy/Move
Select Entry to Copy:  (97-110): 99
Copy into (different) Name: LAST LAB ALT// LAST LAB
AST
```

OBJECT copied into File Entry #1475

Press RETURN to continue or '^' or '^ ^' to exit:

Please test the copy object and activate it when it is ready for users to embed it in boilerplate text.

Press RETURN to continue or '^' or '^ ^' to exit:

Method #1 (cont.)

| Objects | Mar 14, 2011 13:36:05 | Page: | 7 of 2 | | |
|--|-----------------------|--------------|-----------------------|-----------|-----|
| Objects | | | | | |
| + | | | Status | | |
| 9 | LAST HT WITH CAPTION | | A | | |
| 7 | LAST HT WITH DATE | | A | | |
| 99 | LAST LAB ALT | | A | | |
| 100 | LAST LAB AST | | I | | |
| 101 | LAST LAB CBC | | A | | |
| 102 | LAST LAB CHEM7 | | A | | |
| 103 | LAST LAB CREATININE | | A | | |
| 104 | LAST LAB DATE CHOL | | A | | |
| 105 | LAST LAB GLUCOSE | | A | | |
| 106 | LAST LAB HCT | | I | | |
| 107 | LAST LAB HEMATOCRIT | | A | | |
| 108 | LAST LAB HEMOGLOBIN | | A | | |
| 109 | LAST LAB HGB-LAST 4 | | A | | |
| 110 | LAST LAB HGBA1C | | A | | |
| + | ?Help | >ScrollRight | PS/PL PrintScrn/List | +/- | >>> |
| | Find | | Detailed Display/Edit | Copy/Move | |
| | Change View | | Try | Quit | |
| | Create | | Owner | | |
| Select Action: Next Screen// DET Detailed Display/Edit | | | | | |
| Select Entry: (97-110): 100 | | | | | |

Method #1 (cont.)

```
Detailed Display           Mar 14, 2011 13:36:37           Page:      1 of      1
                          Object LAST LAB AST

Basics
  Name:      LAST LAB AST
  Abbreviation:
  Print Name:
  Type:     OBJECT
  IFN:     1475
  National
  Standard: NO
  Status:   INACTIVE
  Owner:    CLINICAL COORDINATOR

Technical Fields
  Object Method:  S X=$$SLAB^BTIUPCC(+$G(DFN),"ALT")

Description
  ? Help          +, - Next, Previous Screen      PS/PL
  Basics          Find                            Description Edit
  Technical Fields Delete
  Try             Quit

Select Action: Quit// TECH Technical Fields
OBJECT METHOD:  S X=$$SLAB^BTIUPCC(+$G(DFN),"ALT")  Replace ALT With AST  Replace
S X=$$SLAB^BTIUPCC(+$G(DFN),"AST")
```

Method #1 (cont.)

```
Detailed Display           Mar 14, 2011 13:37:45           Page: 1 of 1
                          Object LAST LAB AST

Basics
  Name: LAST LAB AST
  Abbreviation:
  Print Name:
  Type: OBJECT
  IFN: 1475
  National
  Standard: NO
  Status: INACTIVE
  Owner: CLINICAL COORDINATOR

Technical Fields
  Object Method: S X=$$SLAB^BTIUPCC(+$G(DFN),"AST")

Description
  ? Help      +, - Next, Previous Screen      PS/PL
  Basics      Find                          Description Edit
  Technical Fields      Delete
  Try          Quit

Select Action: Quit// BAS      Basics
NAME: LAST LAB AST//
ABBREVIATION:
PRINT NAME:
CLASS OWNER: CLINICAL COORDINATOR      Replace
STATUS: (A/I): INACTIVE// ACTIVE
```

Method #1 (cont.)

- A new data object – LAST LAB AST has been created.
- Note that if you are logged into a session of RPMS-EHR, the new data object will not be available for use until you log into a new session.

Data Object Creation – Method #2

Using VA Health Summary:

- New TIU Data Objects can be created from VA Health Summaries without having access to Programmer Mode.

Method #2 (cont.)

1. Create a VA Health Summary to output the desired data.
2. Create a Health Summary Object.
3. Create a TIU/Health Summary Object.

Method #2 (cont.)

Health Summary Creation (Step 1)

MEDSPHERE DEMO HOSPITAL RPMS-EHR Management Version 1.1

Health Summary Configuration

ALL List All Health Summaries
IHS IHS Health Summary Configuration ...
VHA VHA Health Summary Configuration ...

Select Health Summary Configuration Option: VHA VHA Health Summary
Configuration

BAT List Batch Health Summary Locations
BLD Build Health Summary Type Menu ...
DEF Display/Edit Health Summary Site Defaults ...
LOC Setup Batch Print Locations
MNT Health Summary Maintenance Menu ...
PRN Print Health Summary Menu ...
TYP VHA Health Summary Types Menu ...

Select VHA Health Summary Configuration Option: BLD Build Health Summary
Type Menu

Method #2 (cont.)

```
Build Health Summary Type Menu
```

```
DEL      Delete Health Summary Type
EDT      Create/Modify Health Summary Type
INF      Information Menu ...
OBJ      Health Summary Objects Menu ...
PRN      Print Health Summary Menu ...
```

```
Select Build Health Summary Type Menu Option: EDT  Create/Modify Health
Summary Type
```

```
Select Health Summary Type: HOSPITAL STAYS
```

```
Are you adding 'HOSPITAL STAYS' as
a new HEALTH SUMMARY TYPE (the 57th)?  No// YES
```

```
NAME: HOSPITAL STAYS//
```

```
TITLE:
```

```
SUPPRESS PRINT OF COMPONENTS WITHOUT DATA:
```

```
LOCK:
```

```
OWNER: TAYLOR,PHILIP K//
```

Method #2 (cont.)

Do you wish to copy COMPONENTS from an existing Health Summary Type? YES//
NO

Select COMPONENT: HOSPITAL STAYS INPT

SUMMARY ORDER: 5// 5

OCCURRENCE LIMIT: 5

TIME LIMIT: 1Y

ICD TEXT DISPLAYED:

PROVIDER NARRATIVE DISPLAYED:

HEADER NAME: Hospital Stays//

Select COMPONENT:

Do you wish to review the Summary Type structure before continuing? NO//
Please hold on while I resequence the summary order.

Method #2 (cont.)

Health Summary Object Creation (Step 2)

MEDSPHERE DEMO HOSPITAL RPMS-EHR Management Version 1.1
Build Health Summary Type Menu

DEL Delete Health Summary Type
EDT Create/Modify Health Summary Type
INF Information Menu ...
OBJ Health Summary Objects Menu ...
PRN Print Health Summary Menu ...

Select Build Health Summary Type Menu Option: **OBJ** Health Summary Objects Menu

DEL Delete Health Summary Object
ENT Create/Modify Health Summary Object
INQ Inquire about a Health Summary Object
PRT Export/Import a Health Summary Object ...
TST Test a Health Summary Object

Select Health Summary Objects Menu Option: ENT Create/Modify Health Summary Object

Method #2 (cont.)

```
MEDSPHERE DEMO HOSPITAL          RPMS-EHR Management          Version 1.1
                                Create/Modify Health Summary Object
Select HEALTH SUMMARY OBJECT:  HOSPITAL STAYS

Are you adding 'HOSPITAL STAYS' as
a new VA HEALTH SUMMARY OBJECTS? No//Y   (Yes)

Select Health Summary Type: HOSPITAL STAYS

Hospital Stays

OK? YES//
```

Method #2 (cont.)

Do you want to overwrite the TIME LIMITS in the Health
Summary Type 'HOSPITAL STAYS'? N// O
Print standard Health Summary Header with the Object? N// O

Partial Header:

Print Report Date? N// O
Print Confidentiality Banner? N// O
Print Report Header? N// O
Print the standard Component Header? Y// ES
Use report time/occurrence limits? N// O
Underline Component Header? N// O
Add a Blank Line after the Component Header? N// O
Print the date a patient was deceased? N// O
Print a LABEL before the Health Summary Object? N// O

Suppress Components without Data? N// O

OBJECT DESCRIPTION:

No existing text
Edit? NO//

Method #2 (cont.)

TIU/Health Summary Creation (Step 3)

TIU > HIS > TMM > DDM > DDM6

Method #2 (cont.)

```
TIU Health Summary Object      Mar 14, 2011 14:11:28      Page:      1 of      2
  TIU Object Name              Health Summary Type
1  CHRONIC MEDS                HS-MEDS CHRONIC
2  ER FLOWSHEET               ER FLOWSHEET
3  FAMILY HISTORY             FAMILY HISTORY
4  IMMUNIZATION HISTORY       IMMUNIZATION HISTORY
5  LAST 5 HGBA1CS            LAST 5 HGBA1CS
6  LAST 5 INRS                LAST 5 INRS
7  LMRD                       LMRD
8  MEASUREMENT PANEL         MEASUREMENT PANELS
9  MED RECONCILIATION        MED RECONCILIATION
10 MOST RECENT LABS          MOST RECENT LABS
11 NEW TEST                   NEW TEST
12 PEDIATRIC MEASUREMENTS    PEDIATRIC MEASUREMENTS
13 PERSONAL HISTORY         FAMILY HISTORY
14 REMINDERS DUE            REMINDERS DUE
+      Enter ?? for more actions
  Create New TIU Object              Find
  Detailed Display/Edit TIU Object   Detailed Display/Edit HS Object
  Quit
Select Action: Next Screen//CREATE   Create New TIU Object
```


Method #2 (cont.)

Note: When creating the TIU Health Summary Objects, normally just accept the default values at each prompt.

```
--- Create TIU/Health Summary Object ---  
  
Enter a New TIU OBJECT NAME: HOSPITAL STAYS  
  
Object Name: HOSPITAL STAYS  
Is this correct? YES//  
  
Use a pre-existing Health Summary Object? NO// NO  
  
Checking HOSPITAL STAYS (TIU) with Health Summary...  
Creating Health Summary Object 'HOSPITAL STAYS (TIU)'  
Select Health Summary Type: HOSPITAL STAYS  HOSPITAL STAYS  
Hospital Stays  
OK?  YES//  
  
Do you want to overwrite the TIME LIMITS in the Health  
Summary Type 'HOSPITAL STAYS'?  N// O  
  
Print standard Health Summary Header with the Object?  N// O
```

Method #2 (cont.)

Partial Header:

Print Report Date? N// O

Print Confidentiality Banner? N// O

Print Report Header? N// O

Print the standard Component Header? Y// ES

Use report time/occurrence limits? N// O

Underline Component Header? N// O

Add a Blank Line after the Component Header? N// O

Print the date a patient was deceased? N// O

Print a LABEL before the Health Summary Object? N// O

Suppress Components without Data? N// O

OBJECT DESCRIPTION:

No existing text

Edit? NO//

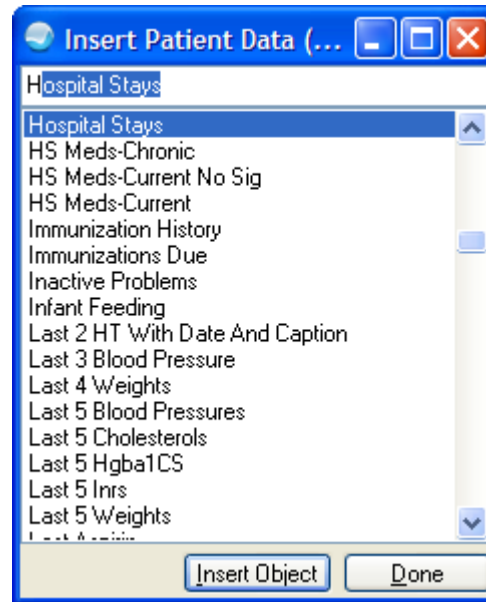
Create a TIU Object named: HOSPITAL STAYS

Ok? YES//

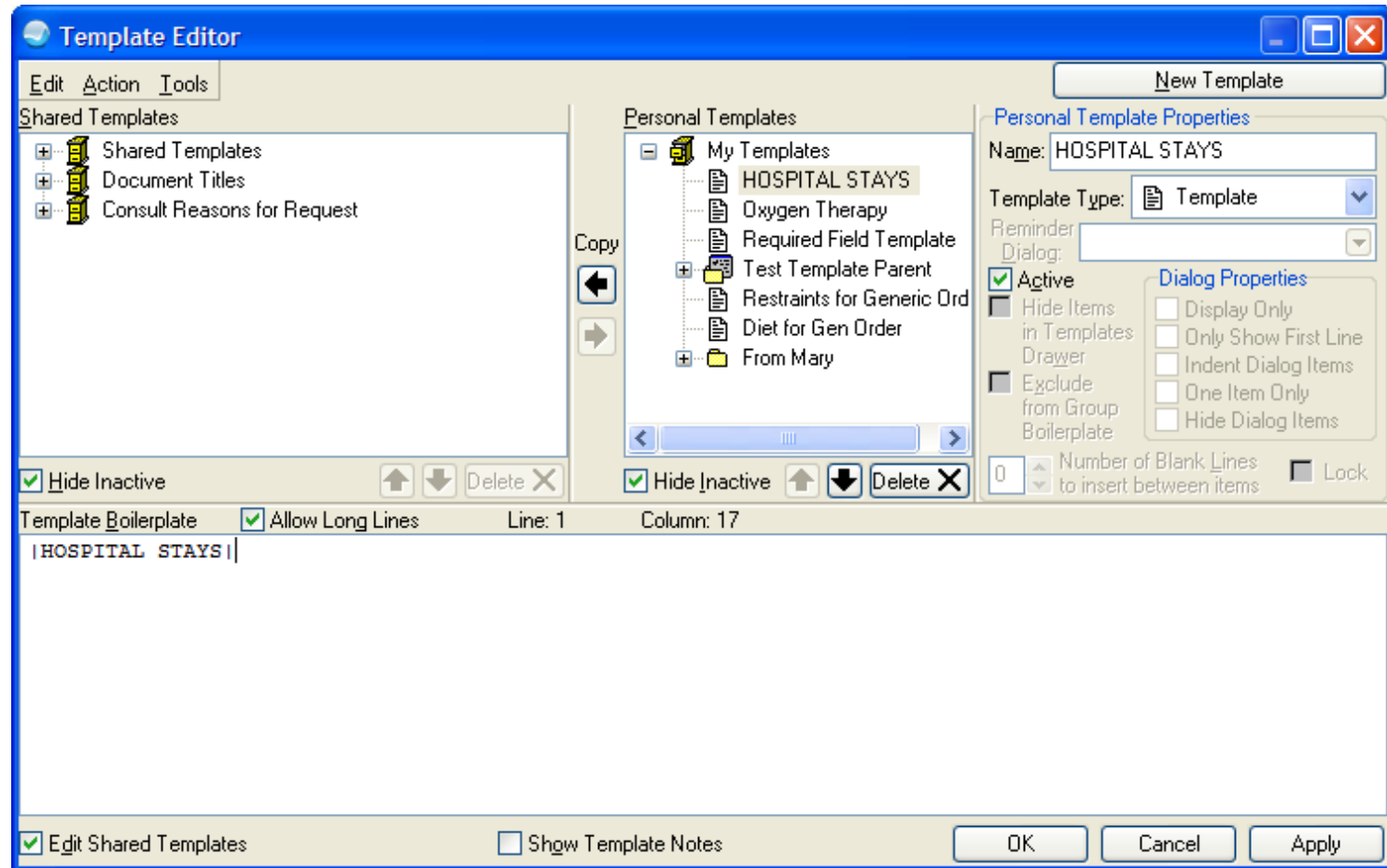
TIU Object created successfully.

Enter RETURN to continue...

Method #2 (cont.)



Method #2 (cont.)



Other Uses for Data Objects

Where can data objects be used in addition to Progress Notes?

- Quick Orders that have free text fields (e.g. Comments)

Note: With the installation of EHR 1.1 patch 11, Data Objects will now work in word processing prompts in Generic Orders!

Other Uses for Data Objects: Pharmacy Quick Order with Data Object

Place the data object in the Comments field of the Quick Order:

```
-----  
Medication: CEPHALEXIN CAP,ORAL  
Instructions: 500MG ORAL QID  
Priority: ROUTINE  
Comments: Last Weight: |LAST WEIGHT|  
-----
```

```
(P)lace, (E)dit, or (C)ancel this quick order? PLACE//
```

Pharmacy Quick Order with Data Object

The screenshot shows a 'Medication Order' window with the following details:

- Medication: CEPHALEXIN CAP,ORAL
- Change button
- Complex tab selected
- Table with columns: Dosage, Route, Schedule
- Comments field containing: Last Weight: 98.00 lb [44.49 kg] (circled in red)
- Expected First Dose: TODAY 14-Mar-2011@10:00 am
- Priority: ROUTINE
- Give Additional Dose Now checkbox (unchecked)
- Summary: CEPHALEXIN CAP,ORAL 500MG PO QID Last Weight: 98.00 lb [44.49 kg]
- Buttons: ADR's, Accept Order, Quit

| Dosage | Route | Schedule |
|--------------|-------|----------------------------------|
| 500MG | ORAL | QID <input type="checkbox"/> PRN |
| 250MG | | Q4H |
| 500MG 0.166 | ORAL | Q6H |
| 1000MG 0.332 | | Q8H |
| | | QAM |
| | | QHS |
| | | QID |
| | | QOD |

Pharmacy Quick Order with Data Object

- Use of a data object in the Comments field of a pharmacy order may be problematic with renewals or if a site is using ePrescribing.



Questions and Discussion