

User Manual



CPOE User Manual

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Introduction:

Computerized Provider Order Entry will close the patient safety loop, improve quality of care and reduce errors by allowing care providers to enter orders directly into CareLink.

Why CPOE?

- **♦ Process improvement**
- ♦ Cost-conscious decision making
- ♦ Clinical decision support
- **♦ Optimal use of physician time**

CPOE can actually optimize practice!

- ♦ CPOE was designed to support medical practice, not subjugate your own clinical judgment.
- ♦ The system does this with decision support tools, such as InfoLinks and warnings.
- ♦ Tools and data are dynamic, creating opportunities for improved patient care.

Studies on post-implementation CPOE show:

- ♦ In one post-implementation study, time for the administration of STAT Furosemide was >50% faster than pre-implementation making a big difference for a CHF patient!
- Process improvement decreases fragmentation of the provider's time:
 - Decrease in the number of lost orders
 - Decrease the number of inquiries for ambiguous orders
 - Clinical decision support tools, like InfoLinks and alerts, improve workflow and minimize disruption
 - Evidence-based information is built into the system

Log in to the CareLink Website (Portal) to Enter Orders

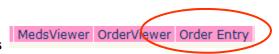
Viewing all your patient orders

You will have to check the chart for orders that have been written on paper until all providers are CPOE trained.

You should also check:

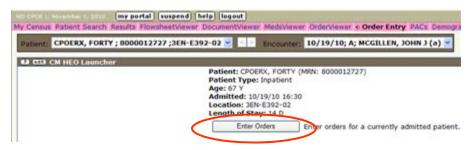
MedsViewer OrderViewer

- The Meds Viewer Tab
 - This tab, located between the **Document Viewer Tab** and the **Order Viewer Tab**, allows physicians to view all medications and I.V.'s ordered and administered.
- The Order Viewer Tab
 - Is located next to the *Order Entry Tab* and displays all non-med orders written on the patient during this admission.
 - You may sort orders by status, order group, or those written in the last "n" days.
- The *Chronological view* in the Orders pane in Order Entry
 - Displays all orders from newest to oldest.
 - Provides a quick review of recent orders if you have been away for a few days or are new to the patient.

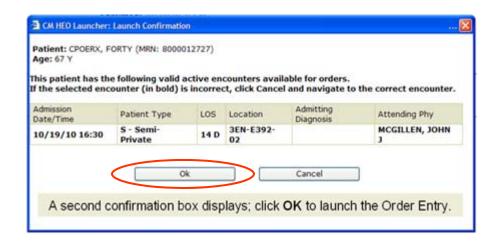


Provider Order Entry Process

- ♦ Log in to CareLink
- ♦ Select your patient and open the chart
- ♦ Click the Order Entry tab
- ♦ The first security box displays
 - Insure that you have the correct patient
 - Click Enter Orders

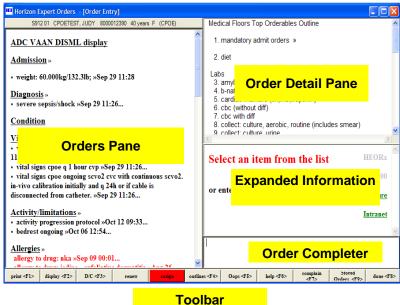


 A second security box displays. If you have the correct patient, click OK.



This action launches the Order Entry application.

The Order Entry Screen



The Orders Pane:

- Occupies the entire left side of the screen.
- Displays all active orders entered into CareLink.
- 3 views: ADC VAAN DISML default provider view; Chronological lists all orders in chronological view from newest to oldest, and Current Orders - default non-provider view

The Order Detail Pane:

- Returns a list of items matching the search terms you entered in the Order Completer pane.
- Select an item from the list. When you begin to build the order, the details display in this screen

The Expanded Information Pane:

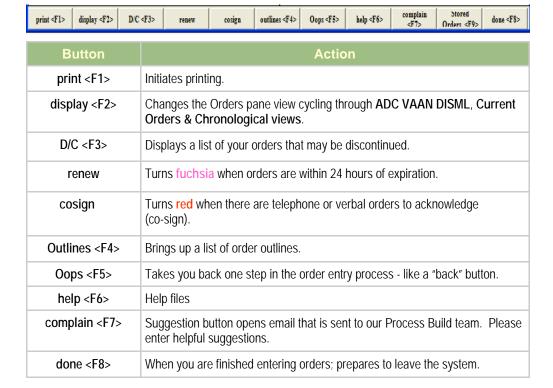
Prompts your next actions in the order entry process

The Order Completer Pane:

- The area where you will type in your search term, like a *Google* search.
 - Launches a search engine that retrieves tests, treatments, etc. that mach your entered search term.
 - Where you will type responses to the prompts in the Expanded Information pane.

The Toolbar Buttons:

- Click the button to initiate the action.
- <F> indicates that you can also use the function key on your keyboard to initiate the action.



CareLink Order Entry Process

- Open a patient's chart and select the Enter Orders tab in the CareLink Website
- Type the order in the Order Completer pane and press Enter.
- · Select the order from the list.
 - ♦ Follow the prompts in the Expanded Information pane:
 - Select a Priority. (When to start?)
 - ♦ Frequency. (How often?)
 - ♦ Select a Duration. (For how long?)
- Provide any additional information required, or enter **Comments**, if necessary.
- Press Enter (You can enter more orders or...)
- Click done <F8>.
- · Accept and Exit.

CARELINK ORDER ENTRY PROCESS

Modify an Order

BEFORE Saving and Accepting the Order:

- Select a patient, and open Order Entry.
- Left click the order's blue text in the Current Order Pane
- Select Modify
- You will be returned to the Order Entry process
- Click on the order element you want to modify and enter the modification
- Select done <F8>
- Accept and Exit.

Note: You can modify some saved orders. If you click the order and the "modify" option appears, the order can be modified.

AFTER the Order Is Saved, you can modify most medication orders:

- Select a patient and open Order Entry.
- Left click the medication (in black text).
- Select Modify
- You will be returned to the **Order Entry** process
- Click on the order element you want to modify and enter the modification
- Select done <F8>
- Accept and Exit.

Delete an Order

- Select a patient, and open Order Entry.
- Left click the order's blue text in the Current Order Pane
- Select Delete. (You can only delete an order before it is accepted.)
- The order disappears from the Current Orders pane.
- Select done <F8>
- Accept and Exit.

The Order Entry Process (continued)

Discontinue a Single Order

- ♦ Click a saved order on the **Orders** pane.
- ♦ Click Discontinue in the pop-up box. (DO NOT use Discontinue for cleanup— the department is not notified!)
- ♦ Click done <F8>.
- ♦ Accept and Exit.

Discontinue Multiple Orders

- ♦ Select a patient, and open Order Entry.
- ♦ Click D/C <F3> on the toolbar.
- A list of orders that can be discontinued displays
- ♦ Check the box/boxes before the orders you want to discontinue.
- ♦ Click the **Discontinue orders** button
- ♦ The orders disappear from the Current Orders pane.
- ♦ Click **done <F8>** when finished.
- ♦ Accept and Exit.

Renew Orders

- ♦ Select a patient, and access Orders Entry.
- Click the Renew button if it is highlighted in fuchsia on the Order Entry toolbar.
 - Check the box next to the order you wish to renew
 - Click Renew Selected Orders.
- ♦ Click done <F8>.
- ♦ Accept and Exit.

Co-Sign Orders

- ♦ Select a patient, and access Orders Entry.
- ♦ Click the **Co-sign** button if it is highlighted in **red** on the **Order Entry toolbar**.
 - Check the box next to the order you wish to cosign that appear in the "My Orders" box.
 - Click Acknowledge Selected Orders at the bottom of the box to co-sign the orders.
- ♦ Click done <F8>.
- ♦ Accept and Exit.

Order Entry, Continued

Order Sets

- An order set, or order outline, contains multiple, orders that are characteristically ordered together, for example, "Chest pain, R/O Coronary Syndrome."
- ♦ Order sets are denoted by ">>" following the order name.
 - 2. heart failure orders (12/08) cpoe

Linked Orders

- ♦ A linked order is denoted by a "+" sign in front of the test name
 - By clicking the numbered order above the list, all linked orders move to the Orders pane at the same time.
 - You enter multiple orders with one click of the mouse.
 - 1. mandatory admit orders »

LINKED ORDERS

- 2. diagnosis: heart failure
- + ambulate encourage early ambulation as soon as patient is able.
- + daily weight
- + intake and output strict
- + vital signs per unit standrd b/p, t,p.r
- + oxygen/ nasal cannula at 2- 4 lpm. maintain o2 sat > or = to 90%. call m.d. if <90%
 - + pulse oximetry a shift
- if, then if unable to obtain accurate output, then may insert indwelling urinary catheter, may discontinure foley once on oral diuretics.
- + if, then if urine output <350 ml/8 hours while on iv diuretic therapy hen notify md
- + central telemetry monitoring call md for > 10 beats of vt or symptomatic vt, once md aware of non-sustained vt, call only if sustained or symptomatic.
 - + patient education institute/reinforce heart failure teaching protocol.
- + apn consult heart failure notification of consult to be made by nursing unit x7363; invision 840351
 - + dietary consult for chf dietary instruction.
 - + do not hold drugs without a physician's order for hypotension or

Linked orders appear in blue text in the Orders pane.

Chronological display

New orders

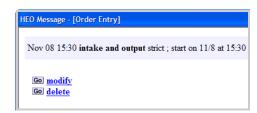
- Nov 08 15:30 do not hold medication / iv without physician order for hypotension or bradycardia.; start on 11/8 at 15:30
- · Nov 08 15:30 registered dictitian to instruct diet for chf dictary instruction.; start on 11/8 at 15:30
- · Nov 08 15:30 approaches to be made by nursing unit x7363; invision 840351; start on 11/8 at 15:30
- · Nov 08 15:30 patient education institute/reinforce heart failure teaching protocol.; start on 11/8 at 15:30
- Nov 08 15:30 central telemetry monitoring call md for > 10 beats of vt or symptomatic vt, once md aware of non-sustained vt, call only if sustained or symptomatic.; start on 11/8 at 15:30
- Nov 08 15:30 if, then if urine output <350 ml/8 hours while on iv diuretic therapy then notify md; start on 11/8 at 15:30
- · Nov 08 15:30 if, then if unable to obtain accurate output, then may insert indwelling urinary catheter, may discontinure foley once on oral diuretics.; start on 11/8 at 15:30
- Nov 08 15:30 pulse oximetry- nursing spot check q shift; start on 11/8 at 15:30
 Nov 08 15:30 oxygen/ nasal cannula at 2- 4 lpm. maintain o2 sat > or = to 90%. call m.d. if <90%; start on 11/8 at 15:30
- Nov 08 15:30 vital signs cpoe per unit standed b/p, t,p.r; start on 11/8 at 15:30
- Nov 08 15:30 intake and output strict; start on 11/8 at 15:30
- Nov 08 15:30 daily weight; start on 11/8 at 15:30
- · Nov 08 15:30 ambulate encourage early ambulation as soon as patient is able.; start on 11/8 at 15:30
- · Nov 08 15:30 diagnosis heart failure; start on 11/8 at 15:30

Previous orders

- Nov 15 06:00 cbc (without diff) tmd pk x1 times »Nov 15 06:00
- · Nov 12 06:00 cbc (without diff) tmd pk x1 times »Nov 12 06:00

Modify or Delete Linked Orders

- To modify or remove one of the linked orders, click the item in blue text, and
- Select Modify or Delete.
 - Complete the Order Entry process.
 - Press "done" <F8>
 - Accept and exit.

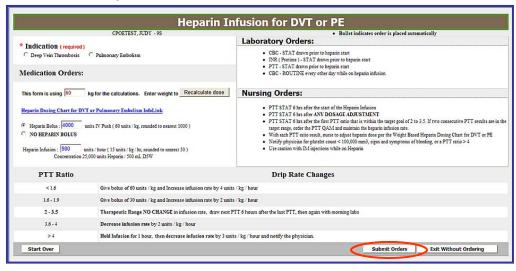


i-Forms

i-Forms are "interactive" forms that will generate an order.

To complete an i-Form:

- ♦ Launch orders.
- ♦ Type the name of the order into the Order Completer pane.
- Select i-Form from the list.
- ♦ Check the appropriate boxes in the i-Form.
- Click Submit Orders at the bottom of the i-Form.
- ♦ The submitted orders are displayed in **blue text** in the Orders pane.
 - You may modify or delete as necessary
 - Complete the order entry process, press done <F8>.
 - Accept and Exit.



NOTE: You cannot modify or discontinue a diet generated from a <u>diet i-Form</u>, but you can delete the order <u>before</u> it is accepted.

Merely complete another i-Form to order a new diet. Other i-Forms can be modified when the orders are displayed in blue text in the Orders pane..

InfoLinks

- ♦ InfoLinks are web pages that contain reference information
- ♦ They can be found on i-Forms or on order outlines.

LAB PRIORITY AND FREQUENCY MUST BE ENTERED CORRECTLY

- OR THE LAB WILL NOT BE DRAWN AT THE TIME IT APPEARS TO BE ORDERED!

TIMED PK can only be matched with ONCE and Q_H.

When to Start. To order a QxH test, you must choose TMD PK: (with optional start date & time)

1 ROUTINE (default)
2 STAT
3 DRAW STAT
4 TMD PK

or enter an allowed value

- ♦ After picking TMD PK, you can enter "TOD" if it starts today, or
- ♦ Enter a specific time or entire date/time if the order is for the future.
- ♦ Then, select an allowed frequency.

How often: 1 ONCE (default) 2 TOMORROW AM (00:01) 3 Q AM (5-7AM) (00:01) 4 EVERY OTHER AM (00:01) 5 Q2H PICK TMD PK 6 Q3H PICK TMD PK 7 Q4H PICK TMD PK 8 Q6H PICK TMD PK 9 Q8H PICK TMD PK

or enter a start date, time and priority

♦ ROUTINE can only be matched with ONCE, TOMORROW AM, QAM, or EVERY OTHER AM.



Medication/IV Orders

General Information

How medication orders are displayed:

oral = generic [brand name] inj = generic <u>inj</u> [brand name] ped = generic (ped) [brand name]

If the route isn't available to administer the medication:

- You want to order IV, and it isn't displayed, you have selected the <u>WRONG</u> form of medication.
 - To correct this, click Oops.
 - Start over, select the inj form of the medication.
 - Complete the order entry process as usual.

Med Order Entry Process

- On the Order Entry screen, type the name of the drug in the Order Completer Pane and Enter.
 - Select the drug from the list displayed in the Order Detail pane.
- ♦ Follow the prompts in the
 - **Expanded Information pane.**
- ♦ Enter comments if needed.
- ♦ Press "done" <F8>.
- ♦ Click "Accept the order and Exit."

Modify a Med Order

Click the **blue text** of the order in the Orders pane

- ♦ Select Modify
- Complete the order entry process.

Accepted meds may be modified if the modify option is displayed.

♦ Follow the above procedure.

 \Diamond

Pharmacy Communication Order:

Used to make changes to existing medication orders when:

- Holding a single dose.
- Temporarily stopping a medication or dose around a procedure or surgery.
- Particular medication needs Patient may use own meds.
- ♦ On the Order Entry screen, type Pharmacy Comm in the Order Completer Pane and Enter.
- ♦ Enter the change in comments.
- ♦ Complete order entry process.

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Cancel and re-enter medication orders if you need to change a **DOSE**, **FREQUENCY and/or ROUTE**.

Medication Schedules

- ♦ There is a difference between ordering a med as "QnH" and "QnHR" in the system.
 - A "QnH" frequency will order the medication at NCH standard times.
 - A "QnHR" frequency means the medication will be administered immediately & at "n" hours from the time of entry. (Used for antibiotics)
 - BEST PRACTICE for most meds is "QnH."



♦ "When to Start?"

NEXT SCH

- The med order will come to Pharmacy with a start time of the next scheduled dose, based on the frequency and time the provider entered the order
- After 9AM, the DAILY, QAM and Q 24 H frequencies will not start until tomorrow at 9 AM.

STAT

• The med order will come to Pharmacy with the start time the provider entered the order. **STAT = NOW (in Pharmacy).**

• START TODAY

 Is the frequency to be used when you want a medication to start today. If you select <u>START TODAY</u> on a med that is given once a day, i.e. <u>DAILY</u>, <u>QAM</u>, <u>Q1PM or Q24 hrs</u>, and it s past the time to give the dose, the first dose will be administered <u>today</u>.

```
1 NEXT SCH (default)
2 STAT
3 START TODAY

or enter an allowed value
or enter a start date, time and priority
or press ENTER = NEXT SCH
```

Medication/IV Orders

Medication Rules

- <u>To hold a dose</u>: Open Orders and select the medication you want to hold, and send a Pharmacy Communication order. Enter the date/time of the dose to be held in the comments section of the Pharmacy Communications order.
- Pharmacy to dose med orders: Enter 0 MG as the dose and enter "Pharmacy to dose" in the comments. The exception is Coumadin.: You <u>MUST</u> order the first dose, then add "Pharmacy to dose" in the comments.
- <u>IV DISPLAY ISSUES:</u> Some IV medicated drips will display in the PRN section, instead of the IV section of the Orders pane, ADC VAAN DISML view.
- Pharmacy to Adjust Dose: The provider will order "Pharmacy to adjust dose" with a specific dose already in the dose field.
- Incorrect Dose is Ordered by the Provider: Pharmacy will add the comment, "Dose adjusted per MD order," so the RN will know that Pharmacy has clarified and adjusted the order.
- <u>Weight-based Dose:</u> Some drugs have weight-based formulas built into the dose field, i.e. immunoglobulin.
- Pharmacy can "round" doses per policy: "Per policy" will be visible
 in the Comments, so the RN will know why the dose is different from the
 provider order.
- One Time medication orders should <u>NOT</u> be modified!
- Blanket orders ("Hold all sedatives.") are not acceptable.
- <u>To renew a medication</u> when the toolbar button is <u>fuchsia</u>, you must renew the <u>EXACT</u>, <u>SAME order!</u> If you want to modify the original order, you must either modify the original order, or create a new order.

Medication/IV Orders

- **Chained Orders allow providers to taper medication doses:**
 - Enter "taper" in the comments field, and Pharmacy will enter additional orders, if necessary.
 - The Medrol dose pack is a good example of tapering doses.
- Non-formulary meds: If you don't find a med in your search, it may be non-formulary. If the NCH alternative is not acceptable, enter "Misc" to search for the drug. For, example Zantac is non-formulary, but you would find it under Misc.

IV Orders

- **♦ To find "common IVs":**
 - Type IV fluids in the search pane
- 1. iv fluids nicu »
- 2. iv fluids adult »
- iv fluids pediatrics »
- 4. bolus iv fluids »
- Select from the list of IV Fluid order set
- To order an IV, click IV fluids in the ADC VAAN DISML
 - Select from the list of available IV fluids.

IV fluids»

♦ There are "switch" orders on most IV fluid orders. This allows you to switch an IV to a saline flush when appropriate.

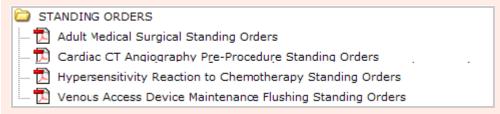
go switch to sodium chloride 0.9% flush

♦ Discontinue the IV fluid:

- Click the order on the Orders pane
- Select discontinue
- You will have the ability to order the saline flush
- Complete the order entry process.

WARNINGS & RULES

- One per Patient warning: Some orders are built to be ordered <u>only once</u> on a patient. The system stops the process if it believes you are attempting to enter a duplicate order.
- **♦ Mandatory Admit Outline:** You must enter admission status!
- ♦ Conditional Orders: "If OK with..." are strongly discouraged! These types of orders must be written on paper.
- Viewing Orders: Providers must view all orders in the Orders Viewer and/or Meds Viewer to see changes. You can also check the most recent orders in the Chronological view of the Orders pane.
- ♦ In the Hybrid World: Providers must check for orders written in the paper chart until all CPOE implementation phases are complete.
- **♦ Standing Orders:**
 - Dr's Standing Orders will be used to order the 5 NCH Standing Orders



- Dr's Standing Orders will also be used to order vaccines, such as influenza or pneumonia vaccines.
- The attending MD is responsible for signing any Standing
 Orders. You will sign these orders <u>after</u> the patient is discharged on the
 Chart Completion Tab of the CareLink Portal.

Transfer Orders

- ♦ Type "transfer" in the Order Completer Pane
- Select No. 1, Transfer patient, from the list in the Order Detail pane
- "When to Start"- Routine is the default
 - You can modify if necessary

```
When to start: (with optional start date & time)

1 ROUTINE (default)
2 STAT
3 TIMED

or enter an allowed value or enter a start date, time and priority or press ENTER = ROUTINE
```

♦ Select from 0—4 values:

Transfer To:

- 1 (x) Critical Care 2 () CSU 3 () Oncology 4 () Orthopedics 5 () Post-Surgical 6 () Medical-Renal 7 () Medical-Pulmonary 8 () Medical-Surgical 9 () Neuro 10 () Pediatrics
 11 () Pediatric Acute Care 12 () POP 13 () Labor and Delivery 14 () Mother-Baby 15 () Admitting Nursery 16 () NICU 17 (Newborn Nursery 18 () Mental Health Voluntary 19 () Mental Health Involuntary 20 () MOU 21 () Medical Unit 22 () Interventional Unit 23 () PPPU 24 () Surgical Heart Unit 25 () Short Stay HF Unit
- Press ENTER when finished.

Select from 0 to 4 values.

Complete the order entry process as usual.

Enter comments if needed

Discharge Orders

- ♦ Type "discharge" into the Order Completer Pane
- Select the appropriate discharge order set
 - 1. discharge orders by attending physician cpoe »
 - 2. discharge orders by consulting physician cpoe »
- ♦ The defaults for the discharge order are Routine and Once
- ♦ Select the Discharge Conditions

Discharge Conditions:

- 1 () no need to call consultants
- 2 () If okay with surgeon
- 3 () if okay with ID consltnt
- 4 () if ok w/ consltnts(list in commnts)

Select from 1 to 3 values. Press **ENTER** when finished.

♦ Complete Discharge To

Discharge To:

- a HOME
- **b** HOME WITH HOME CARE
- c HOME WITH HOSPICE
- d ECF/SNF
- e HOSPITAL TO HOSPITAL
- f INPATIENT HOSPICE
- g ACUTE REHAB
- h LTC HOSPITAL
- i AMA

or enter an allowed value

- **♦** Complete
 - Additional prescriptions
 - Activity
 - Diet
 - Follow up
 - Other instructions
 - Comments
- Complete the Order Entry process

Reminders & Tips

What's Still on Paper

- Consents, or signed documents
- Chemo orders
- ◆ Code Blue documents
- ◆ MET Alert documents
- ◆ TPN
- Restraint Orders

- ◆ Epidurals
- ◆ Some critical care orders, i.e. Xygris, Transitional IV insulin protocol orders
- Conditional orders, i.e. "DC Lanoxin if OK with Dr. Jones."
- Home Care Orders
- ♦ ADC VAAN DISML view of the Orders pane:
 - Find radiology orders under "Other Investigations."
 - Discontinued orders "fall off" the ADC VAAN DISML orders view.
- ♦ To view all orders entered into CareLink click the Patient Banner at the top of the Orders pane.



- ♦ Downtime Procedures: Write orders on paper and use telephone orders.
- Special i-Forms: Type in i-Form—> Pneumonia; Diabetes I & II; Heparin; Diet; Blood Bank; PCA; Thrombosis Risk Assessment; Consents.

Reminders & Tips

<u>Set your default view on your *My Census* tab to the Data Monitor View:</u>

 You are able to access new labs/rad results; and in the future, cosign CareLink orders from this tab.



- How to set the default view on the My Census Tab to the Data Monitor:
 - ♦ Click the **edit button** on the My Census view page.
 - ♦ Scroll down the page and change the Default view to **Data Monitor**
 - ♦ Scroll to the bottom of the page.
 - ♦ Click Save

Additional Resources

CareLink Support Page

- ♦ Click the link on the CareLink Website (Portal) login page under the Message of the Day:
 - CPOE Training materials
 - Fast Track Learning topics
 - Tips
 - Medication Rules
 - IV Info
 - Essential Computer Skills Review

Notes

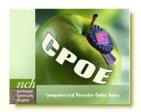


CPOE SUPPORT

Unit-based Support: See placard by unit computers *

*Support to include Clinical Resources (out of staff clinicians dedicated to supporting physicians, midlevel providers and NCH clinicians), as well as Roaming Trainers.

CareLink Hotline 847.618.4830, Option 6 for CPOE assistance



CPOE Support Page: Click the 2nd link on the CareLink log-in page, below the message of the day.