Connect Care

Alberta Health Services

Daylight Saving Time (March 8, 2020)

User Documentation Considerations for Connect Care

March 2, 2020

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Managing Daylight Saving Time (DST)

The skipping of the 2:00 A.M. hour during spring daylight saving time can result in some unique situations that certain users should be aware of. The following users are impacted:

- Anesthesia
- Emergency Department
- Inpatient
- Rover
- Surgery, Cardiology, and Diagnostic Imaging
- Hospital Billing

Impact to Anesthesia Users

Document on Paper during this Event

To maintain the integrity of patients' legal medical record, the recommendation is that Anesthesia users document on paper for patients that span this time change. If users document within Anesthesia, patients' charts could contain inaccuracies as a result of the time change. Examples of these inaccuracies include:

- Incorrectly calculated totals for continuous medications that are administered during this event. Calculated totals are larger than actual totals.
- Incorrect times for device data. Device data times are automatically validated and can't be corrected after the system receives them.
- Incorrect times for Anesthesia Start and Anesthesia Stop events.

Back-Document in Connect Care after this Event

After the event is over, information documented on paper during the event can be added to Connect Care for a more complete record. Back-documenting is safer for Anesthesia users than documenting in Connect Care in real-time during the event because users are no longer relying on calculated totals and have time to make sure that interval lengths are correct. Here are some guidelines to help back-document Anesthesia data successfully:

Type of Data	Tips for Documenting in Connect Care after this Event
Continuous	Make sure the total amount of time the medication was administered is correct, even when it means the start or stop times recorded are incorrect. Correct start and stop times can be recorded using a comment on the medication administration that notes the actual time.
Medications	For example, here's how to back-document an infusion that was started at 1:15 during the first 1:00 A.M. hour and ended at 1:45 during the second 1:00 A.M. hour, running for a total of an hour and a half: - To maintain the correct interval length, record the infusion start time at 12:15 A.M. and the infusion stop time at 1:45 A.M. - To record the real start and stop times, leave a note that the infusion start time was actually "1:15 during the first 1:00 A.M. hour" and the stop time was "1:45 during the second 1:00 A.M. hour."
Anesthesia Start and Stop Events	Make sure the interval between events is correct, even when it means the actual time recorded is incorrect. This ensures that the length of the case is correct. Correct times can be recorded using nursing notes. This is similar to how continuous medications are recorded, as described above.
Device Data	Scan the paper chart into Connect Care.

Impact to Emergency Department and Inpatient Users

Take the Non-Existent 2:00 A.M. Hour into Account When Viewing Patient Tracking and Event-to-Event Times

Patient tracking and event-to-event times that span the event are one hour longer than they should be. As a result, users might experience issues such as:

- Artificially high values for reporting measures such as length of stay or Doc to Dispo.

Take the extra hour into account when using a patient's tracking times and event-to-event times to make decisions. For example, physicians should take the extra hour into account when using total visit times to determine which patients to assign themselves to from the Track Board.

Volume Calculation Warning

A warning appears if a user tries to file a medication volume for which the start and end instants fall within this event.

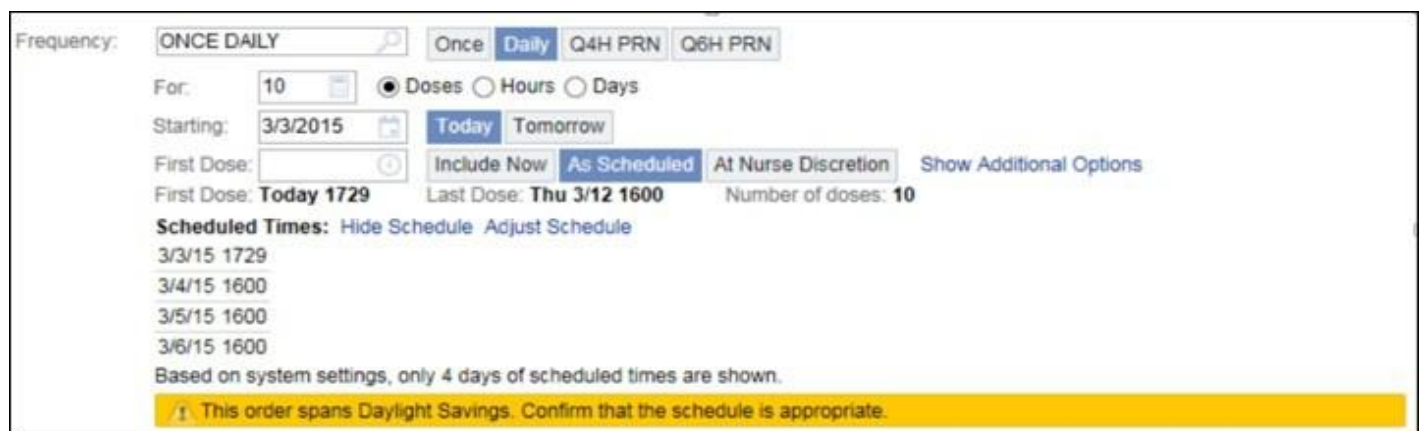## How Tasks and Events Appear on the Brain Timeline during this Event

Nurses using the Brain should be aware that when viewing a shift that contains a time change event, the hours on the timeline are adjusted to reflect the skipped hour:

- During the event, there is no 2:00 A.M. hour represented on the timeline. It is not possible to schedule tasks from either the Brain or the Work List during the non-existent 2:00 A.M. hour.

Automatic Rescheduling

The system automatically reschedules any medication due times and procedures that fall within the non-existent 2:00 AM hour. Note that medication due times and procedures scheduled before or after the non-existent hour are not adjusted.

When placing an order whose schedule spans the event, a prompt will ask the user to review and confirm the order's schedule.

Clinicians and pharmacists should both carefully review order schedules that span this event and confirm that the system-adjusted schedules are appropriate. If an order is scheduled inappropriately, users should adjust that order's schedule in the Order Composer or the MAR as necessary.

Take the Non-Existent 2:00 AM Hour into Account When Viewing Graphs

Areas of Inpatient that graph data over time continue to show the 2:00 A.M. hour, even though it didn't occur. When evaluating graphs of clinical data over time, the 2:00 AM hour did not occur.

This includes graphs that appear in:

- Flowsheets, Results Review, Synopsis, and Accordion Reports

Manually Calculate Volumes for Infusion Groups

For patients whose stay overlaps with the event, clinicians must manually calculate volumes for infusion groups in the Flowsheets activity. If clinicians attempt to automatically calculate volumes, the system calculation assumes that the infusion was running an hour longer than it was running. Once the clinician has manually calculated the volume and documented it in the Flowsheet, they can go ahead and resume using the auto-calculate functionality.

Medication Administration-driven Warnings Do Not Account for DST

Warnings driven by medication administrations do not take the time change into account. As a result, warnings might appear inaccurately or might not appear when expected.

For example, imagine that during the event, one dose of a medication is administered at 1:59 AM, and another dose is administered thirty minutes later at 3:29 AM. Because of the skipped 2:00 AM hour, the system treats these administrations as being 90 minutes apart. As a result, the BPA that typically appears when there is less than one hour between medication administrations does not appear to let the user know these administrations are too close together.

Nurses Cannot Enter Flowsheet Data for the Non-Existent 2:00 AM Hour

Nurses will not be able to enter flowsheet values in the 2:00 AM to 3:00 AM hour.

Nurses That Work List Tasks That Occur During the Non-Existent 2:00 AM Hour Will Appear to Be Overdue After the Time Change

Nurses that Work List tasks are scheduled during the 2:00 AM hour will appear overdue after the time change, and they should document these tasks at the appropriate time during the 3:00 AM hour.

Impact to Rover Users

Some Documentation Options Are Unavailable on Rover during the Non-existent 2:00 A.M. Hour

Rover can't load medication administrations or worklist tasks that the system schedules during the non-existent 2:00 A.M. hour. Also, clinicians cannot document in a flowsheet time column inserted during the non- existent 2:00 A.M. hour. When a clinician attempts to document a medication administration or task scheduled during the non-existent hour, or documents in a flowsheet time column inserted during that time, an error occurs.
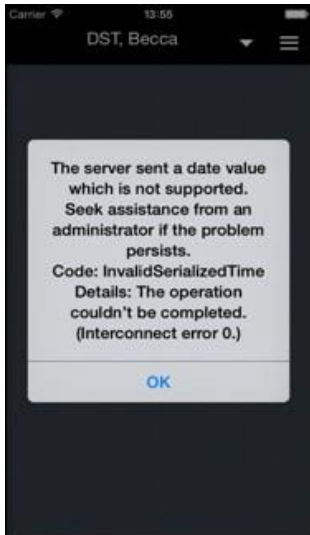
If clinicians want to document these tasks in Rover, they can adjust the scheduled due times in Hyperspace so the tasks are not scheduled during the 2:00 A.M. hour. Otherwise, clinicians can document these tasks in Hyperspace.

Impact to Surgery, Cardiology, and Diagnostic Imaging Users

Nurses to Manually Correct the Time between Case Tracking Events

To maintain accurate patient procedure time averages, nurses must account for the skipped hour when documenting case tracking events for patients whose cases take place during the event.

To keep patients' records as accurate as possible, nurses should:

- Change case tracking event times so the amount of time between events is accurate, even if this results in the actual event times themselves being inaccurate.

- Add a nursing note that specifies the actual times at which case tracking events occurred for the patient. This ensures that the actual times at which events occurred are documented in the patient's chart.

- Non-Invasive Cardiology Diagnostic Imaging Technologist performing procedures during this event, should update begin and end procedure times to reflect accuracy over the DST.

Impact to Hospital Billing Users

Billing Staff to Add or Remove Hourly Bed Charges Based on Time Change Inaccuracies

The manual charge correction is still necessary for timed procedures or charges affected by this event and for instances when a patient is admitted and discharged within the period when a DST change occurs. For example, manual correction is necessary for a patient admitted at 1:30 A.M. and discharged at 1:00 A.M. due to the DST transition.

If you need to compile a list of patients whose hourly bed charges were affected by DST events, you can run a report from the ADT Bed Charge Report in Hyperspace (Epic button > Reports > ADT Reports > Bed Charge Report) using the following criteria:

- Date Range: The day the DST event occurred
- Bed Charge Type: Hourly
- Bed Charge Status: Posted
- Service Area: Enter the appropriate service area