

Gestational Age Medication Dosing

MEDITECH 5.6.7 PHA Update

EHR

Update

Gestational Age Dosing Updates for 2025.1 Release

For the 2025.1 Maintenance Release for Pharmacy, several updates have been made to the Gestational Age Dosing Screens, and these are outlined below:

1. Retired Ampicillin 50 mg/kg and Ampicillin 100 mg/kg and replaced with Ampicillin (Bacteremia) and Ampicillin (Meningitis) screens
2. Created screen for Penicillin G GBS Bacteremia
3. Created screen for Penicillin G GBS Meningitis
1. Created screen for Zosyn to only have Q8H option for everyone (removed attribute logic, same weight-based dose for all ages)
4. Created screen for Zidovudine PO HIV
5. Created screen for Fluconazole Inv Candidiasis
6. Made multiple changes to Dosing Chart:
 - a. Change all instances of "0-29" to " ≤ 29 "
 - b. Change ">44" to " ≥ 45 "

For general information about the Gestational Age Medication Dosing workflow, please see the following content further below in this document.

Gestational Age Medication Dosing

The Gestational Age Medication Dosing screens are designed to assist clinicians in ordering an initial appropriate dose and administration frequency for selected medications based on the applicable gestational, postmenstrual, and/or postnatal ages of neonatal patients. This educational document will walk the end-user through the step-by-step process of completing a Gestational Age Dosing screen for an applicable medication.

See the standard Gestational Age Dosing Chart for standard medications at the end of this document.



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Order Lookup

Any Order Lookup

Search on:

Preview/Edit Go to Favorites
Add to Favorites

Order Description	Category
Gest Age Amikacin	PHARMACY GEST AGE DOSE NONBILL
Gest Age Amikacin V2	PHARMACY GEST AGE DOSE NONBILL
Gest Age CeFAZolin	PHARMACY GEST AGE DOSE NONBILL
Gest Age Cefepime	PHARMACY GEST AGE DOSE NONBILL
Gest Age Cefotaxime	PHARMACY GEST AGE DOSE NONBILL
Gest Age Clindamycin	PHARMACY GEST AGE DOSE NONBILL
Gest Age Fluconazole	PHARMACY GEST AGE DOSE NONBILL
Gest Age Gentamicin	PHARMACY GEST AGE DOSE NONBILL
Gest Age Meropenem	PHARMACY GEST AGE DOSE NONBILL
Gest Age Meropenem Meningitis	PHARMACY GEST AGE DOSE NONBILL
Gest Age MetroNIDAZOLE	PHARMACY GEST AGE DOSE NONBILL
Gest Age Nafcillin	PHARMACY GEST AGE DOSE NONBILL
Gest Age Nafcillin Meningitis	PHARMACY GEST AGE DOSE NONBILL

More

Step 1: Choose the patient.

Step 2: Select an order set with gestational age dosing, or a gestational age dosing order pre-built in the Orders lookup.

Step 3: Press <Enter> or click "Done" to generate the Gestational Age Dosing Screen.

Dosing Screen Formats

Medications dosed using Postmenstrual age – Example

Gestational age (weeks): 25*(days): 6*

Postnatal age (days): 20

Postmenstrual age (weeks): 28

Amikacin dose: 12000 *12 mg/kg every 36 hours

PRESS <ENTER> OR CLICK 'OK' TO REFLEX ANTIBIOTIC ORDER

There are 3 Dosing Screens that are dependent upon the age that is entered:

- Postmenstrual age
 - Postmenstrual age will calculate once all components are available.

Medications dosed using Gestational age – Example

Gestational age (weeks): 29*(days): 3*

Postnatal age (days): 23

Fluconazole dose: 6024 *6 mg/kg every 24 hours

PRESS <ENTER> OR CLICK 'OK' TO REFLEX ANTIBIOTIC ORDER

- Gestational age
 - The Gestational age (weeks) and (days) fields are required.
 - If gestational age information is not available, it must be manually entered.
 - If gestational age information is available, that information will automatically populate into the gestational age fields.

Medications dosed using Postnatal age – Example

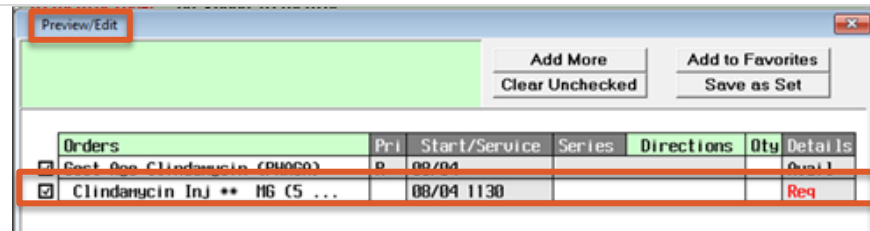
- Postnatal age
 - The postnatal age will automatically populate into the screen.

Gestational age update notification message

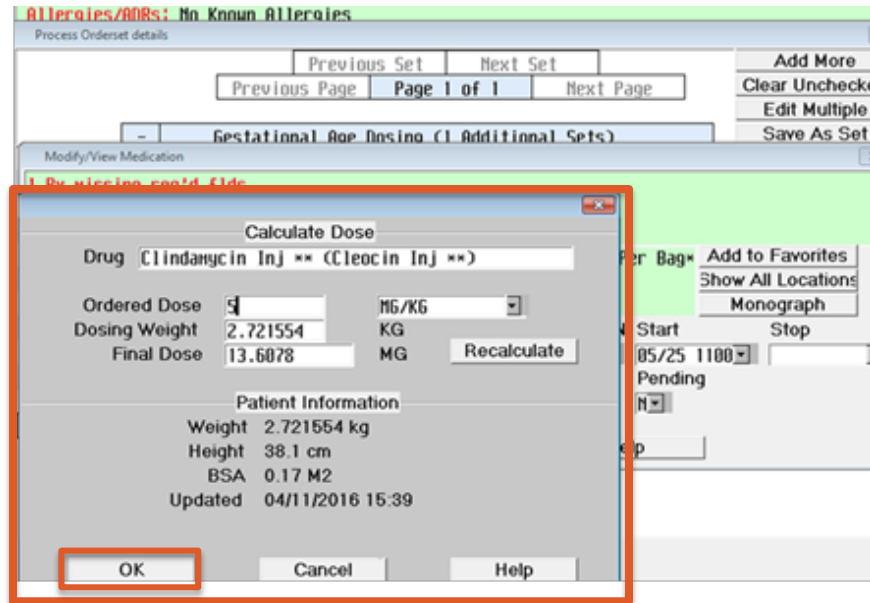
Note: Anytime a provider changes the Gestational age fields on the dosing screen, a message will be displayed (see image on left). If the Gestational age fields were blank prior to manually entering the information, no message displays.

Step 4: Once the dosing screen is complete with the necessary ages, press <Enter> or click “Ok” to reflex the medication order.

Step 5: You will be notified that a subsequent medication order has been reflexed

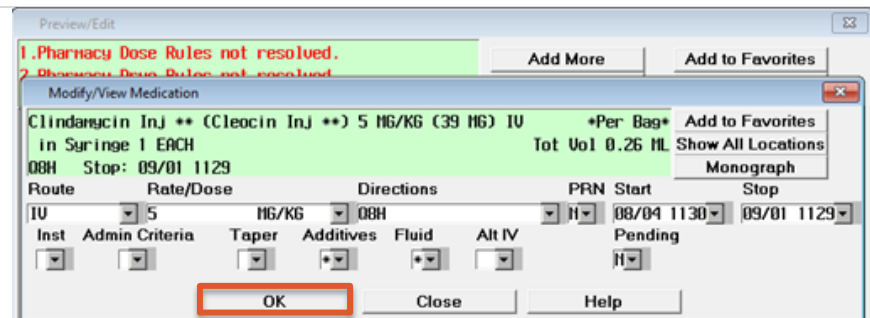


Step 6: The reflexed medication order will display on the Preview/Edit screen and may have required information to review.



Step 7: Within the Medication order, the Calculate Dose box will display. If needed, the dose or weight fields can be manually adjusted one last time.

Step 8: Press <Enter> or click "OK" to continue out of the Calculate Dose screen.



Step 9: Press <Enter> or click "OK" to continue out of the medication order screen.

GESTATIONAL,ONCE - 01M 14D/M DOB 04/11/16 ADM IN J.PHARM J.PHARM,
 38.1 cm 2.722 kg 0.17 m2 18.8 kg/m2 U/A J000424079/J000210092
 Allergies/ADRs: No Known Allergies

Current All Session

Category	Orders	Pri	Date/Time	Status	Stop	My
- New Orders (2)						
Gest Age Clindamycin (PHAGA)			05/25	New		*
Clindamycin Inj ** 14 MG (5 MG/KG) in Syringe 1 EACH IV Q8H 0.18 MLS/HR			05/25 1100	New		*

* Allergi
 View/Char
 Renew/Rep
 Hold/Res
 DC
 Undo
 Order Se
 Orders

Submit

Review Order Document Sign Desktop

Step 10: For final review, the order and medication order display as “New” on the patient profile.

Step 11: To complete the ordering process, press <Submit>.

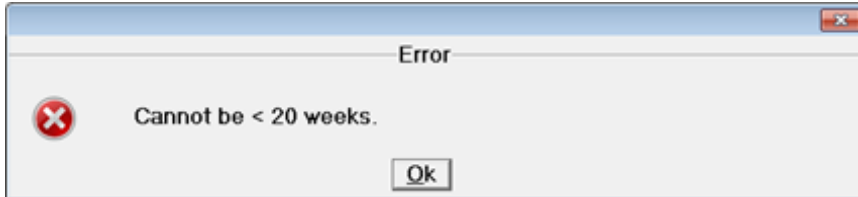
Note: When the ordering session is submitted, it will also file the Gestational Age (weeks) and (days) used during this session for any future orders and dosing of medications utilizing gestational age for this patient.

IMPORTANT: When a provider discontinues the medication, MEDITECH notifies the provider that the medication order is linked to a non-medication procedure. The order should also be discontinued. If the order is cancelled, the software logic wipes out the Gestational Age for future references in the Gestational Age Dosing tool.

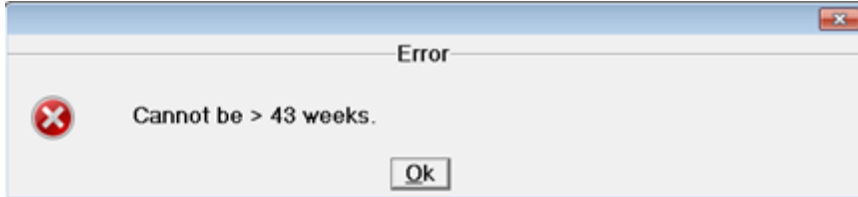
The provider then must define the Gestational Age again even if it was previously saved within the dosing tool.

Error Messages

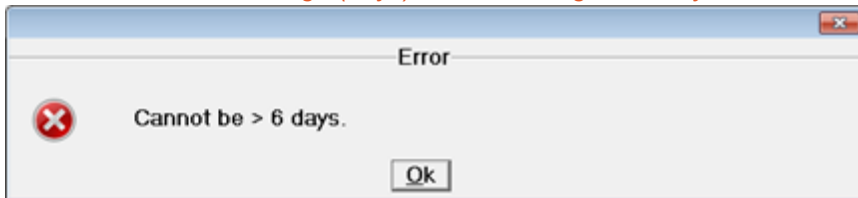
Gestational age (weeks): Error Message "< 20 weeks"



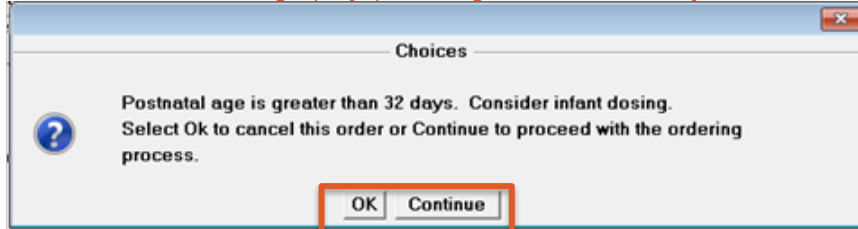
Gestational age (weeks): Error Message "> 43 weeks"



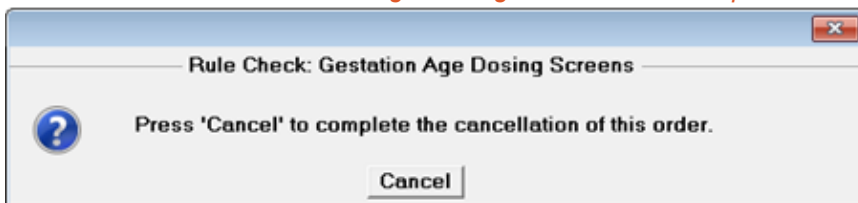
Gestational age (days): Error Message "> 6 days"



Postnatal Age (days): Alert "greater than X# days".



Rule Check: Gestational Age Dosing Screen "Cancel" option.



A few error messages could display during the gestational age medication ordering process if the age entered is not within the established boundaries.

- The gestational age (weeks) field will not accept a value of less than 20 weeks or greater than 43 weeks.
- The gestational age (days) field will not accept a value of more than 6.

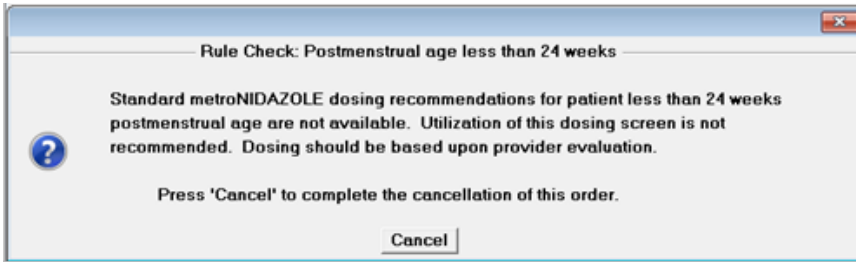
Based on your facility's Postnatal age (days) background settings, you may receive an alert to consider infant dosing instead.

Note: The example shown has the age set at 32 days.

Selecting "Continue" will return the user back to the calculations screen. Selecting "OK" will result in a final confirmation message to cancel the order.

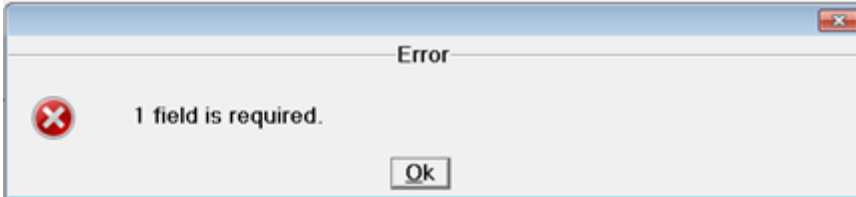
MetroNIDAZOLE ONLY: The postmenstrual age (weeks) field will not allow a calculation of less than 24 weeks and generate an alert.

MetroNIDAZOLE ONLY Rule Check: Postmenstrual age less than 24 weeks "Cancel" screen



If the dosing screen is missing information (e.g., the gestational age), an error message will display as shown.

Error Message "field required"



Gestational Age Dosing Chart

Note: Most of the medications listed below use postmenstrual age for dosing.

Fluconazole, Meropenem, and Meropenem meningitis use Gestational Age for dosing.

Cefepime, Ampicillin (Meningitis), Penicillin G GBS Bacteremia, and Penicillin G GBS Meningitis uses only Postnatal Age for dosing.

Key:

PMA – Postmenstrual Age

GA – Gestational Age

Reference for all dosing: NeoFax online (accessed 5/4/22) Dosing approval granted by the Pediatric Pharmacy Advisory Board.

Medication	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
Amikacin	</=29	0-7	14	48
	</=29	8-28	12	36
	</=29	>/= 29	12	24
	30-34	0-7	12	36
	30-34	>/= 8	12	24
	>/= 35	All	12	24
Ampicillin (Bacteremia) (Gestational Age only)	GA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</= 34	0-7	50	12
	</= 34	> 7	75	12
	> 34	All	50	8
Ampicillin (Meningitis) (Postnatal Age only)	GA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	All	0-7	100	8
	All	> 7	75	6

CeFAZolin	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</= 29	0-28	25	12
	</= 29	>28	25	8
	30-36	0-14	25	12
	30-36	>14	25	8
	37-44	0-7	25	12
	37-44	>7	25	8
	>/= 45	All	25	6

Cefepime (Postnatal Age only)	GA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	All	</= 28	30	12
	All	>28	50	12
Cefotaxime	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	All	< 7	50	12
	< 32	>/= 7	50	8
	>/= 32	>/= 7	50	6

Clindamycin	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</=29	0-28	5	12
	</=29	>28	5	8
	30-36	0-14	5	12
	30-36	>14	5	8
	37-44	0-7	5	12
	37-44	>7	5	8
	>/= 45	All	5	6
Clindamycin Necro Entero	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</=29	0-28	7.5	12
	</=29	>28	7.5	8
	30-36	0-14	7.5	12
	30-36	>14	7.5	8
	37-44	0-7	7.5	12
	37-44	>7	7.5	8
	>/= 45	All	7.5	6
Fluconazole	GA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</=29	0-14	6	48
	</=29	>14	6	24
	>=30	0-7	6	48
	>=30	>7	6	24

Fluconazole Inv Candidiasis	GA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</= 29	0-14	12	48
	</= 29	>14	12	24
	>/=30	0-7	12	48
	>/=30	>7	12	24
Gentamicin	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</=29	0-7	5	48
	</=29	8-28	4	36
	</=29	>=29	4	24
	30-34	0-7	4.5	36
	30-34	>=8	4	24
	>=35	All	4	24
Meropenem (Intra-abdominal and non-CNS infections)	GA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	<32	<14	20	12
	<32	>/= 14	20	8
	>/= 32	<14	20	8
	>/= 32	>/= 14	30	8
Meropenem (Bacterial Meningitis)	GA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	<32	<14	40	12
	<32	>/= 14	40	8
	>/= 32	All	40	8
Metronidazole	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	24-25	All	7.5	24
	26-27	All	10	24
	28-33	All	7.5	12
	34-40	All	7.5	8
	>/= 45	All	7.5	6
Nafcillin (Non-Meningitis)	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</= 29	0-28	25	12
	</= 29	>28	25	8
	30-36	0-14	25	12
	30-36	>14	25	8
	37-44	0-7	25	12
	37-44	>7	25	8
	>/= 45	All	25	6

Nafcillin (Meningitis)	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</= 29	0-28	50	12
	</= 29	>28	50	8
	30-36	0-14	50	12
	30-36	>14	50	8
	37-44	0-7	50	12
	37-44	>7	50	8
	>/= 45	All	50	6

Oxacillin (Non-Meningitis)	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</= 29	0-28	25	12
	</= 29	>28	25	8
	30-36	0-14	25	12
	30-36	>14	25	8
	37-44	0-7	25	12
	37-44	>7	25	8
	>/= 45	All	25	6

Oxacillin (Meningitis)	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</= 29	0-28	50	12
	</= 29	>28	50	8
	30-36	0-14	50	12
	30-36	>14	50	8
	37-44	0-7	50	12
	37-44	>7	50	8
	>/= 45	All	50	6

Penicillin G (Bacteremia)	PMA (weeks)	Postnatal Age (days)	Dose (units/kg)	Interval (hours)
	</= 29	0-28	50,000	12
	</= 29	>28	50,000	8
	30-36	0-14	50,000	12
	30-36	>14	50,000	8
	37-44	0-7	50,000	12
	37-44	>7	50,000	8
	>/= 45	All	50,000	6

Penicillin G (GBS Bacteremia)	GA (weeks)	Postnatal Age (days)	Dose (units/kg)	Interval (hours)
	All	0-7	50,000	12
	All	>7	50,000	8

Penicillin G (Meningitis)	PMA (weeks)	Postnatal Age (days)	Dose (units/kg)	Interval (hours)
	</= 29	0-28	100,000	12
	</= 29	>28	100,000	8
	30-36	0-14	100,000	12
	30-36	>14	100,000	8
	37-44	0-7	100,000	12
	37-44	>7	100,000	8
	>/= 45	All	100,000	6
Penicillin G (GBS Meningitis)	GA (weeks)	Postnatal Age (days)	Dose (units/kg)	Interval (hours)
	All	0-7	150,000	8
	All	>7	125,000	6
Tobramycin	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</= 29	0-7	5	48
	</= 29	8-28	4	36
	</= 29	>/= 29	4	24
	30-34	0-7	4.5	36
	30-34	>/= 8	4	24
	>/= 35	All	4	24
Vancomycin (Non-Meningitis)	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</=29	0-14	10	18
	</=29	>14	10	12
	30-36	0-14	10	12
	30-36	>14	10	8
	37-44	0-7	10	12
	37-44	>7	10	8
	>/= 45	All	10	6
Vancomycin (Meningitis)	PMA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	</=29	0-14	15	18
	</=29	>14	15	12
	30-36	0-14	15	12
	30-36	>14	15	8
	37-44	0-7	15	12
	37-44	>7	15	8
	>/= 45	All	15	6

Zidovudine PO HIV	GA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	<30	<=28	2	12
	<30	29-56	3	12
	<30	>56	12	12
	30-34	<15	2	12
	30-34	15-42	3	12
	30-34	>42	12	12
	>=35	<=28	4	12
	>=35	>28	12	12
Zosyn 100 mg/kg	GA (weeks)	Postnatal Age (days)	Dose (mg/kg)	Interval (hours)
	All	All	100	8