



An HCA Affiliated Hospital



A Campus of Clear Lake Regional Medical Center

Origination: 04/2004
Last Approved: 07/2018
Last Revised: 07/2018
Next Review: 07/2021
Owner: Annette Login: Director - Pharmacy
Policy Area: Pharmacy
Campus:
Applicability: Clear Lake Regional Medical Center

Standard Medication Administration Times

PURPOSE

To define standards for timing of medication administration to comply with regulatory requirements and promote patient safety

POLICY

Medications are defined within this policy which require **specialized, exact or precise timing** of administration and those medications which are eligible for **scheduled** dosing times. Of those medications eligible for scheduled dosing times, medications are distinguished between **time-critical** and **non-time-critical**. The goal for time-critical medications is to administer within 30 minutes before or after their scheduled dosing time (for a total window of 1 hour).

Excluded patient areas: Inpatient care areas follow the scheduled dosing times; procedural areas and emergency department are not subject to standard dosing times.

1. Medications NOT Eligible for Scheduled Dosing Times

- a. Some selected medications are not eligible for scheduled dosing times, and require specialized, exact or precise administration times based on diagnosis type, treatment requirements or therapeutic goals. See **Appendix B**.
- b. Orders for **"STAT"** and **"NOW"** medications will be entered in the patient's profile and will be administered immediately or **within 60 minutes** from the time of the order.
- c. Time Critical Medications (see Section 3)
- d. PRN medications
- e. Pre- and post-procedure antibiotics
- f. Venous thromboembolism (VTE) medical treatment with low-molecular weight heparin
- g. Other Considerations:
 - i. Drug/Drug Interactions - Medications will be given on alternate schedules or customized to minimize potential clinically significant drug-drug interactions.
 - ii. Drug/Food Interactions - Medications will be given on alternate schedules or customized to minimize potential drug-food interactions, improve absorption or reduce adverse effects.
- h. If the ordering practitioner does not want to utilize standardized dosing times, he/she must indicate in the Special Instructions Section of the order entry screen "Do Not Apply Standardized Administration Times" or similar wording.

2. Medications Eligible for Scheduled Dosing Times

- a. All medications eligible for scheduled dosing times will be administered according to the "Standard Administration Times" table located in **Appendix A**. The goal of this scheduling is to achieve and maintain therapeutic blood levels over a period of time.
- b. Orders for medications administered by the Department of Respiratory Therapy will be administered according to the "Respiratory Therapy Standard Administration Times" table located in **Appendix B**. Medications administered by Respiratory Therapy include all nebulized solutions for inhalation and inhalers for pediatric patients only.

3. Time-Critical Scheduled Medications

- a. Time-critical scheduled medications for which an early or late administration of greater than 30 minutes might cause harm or have significant, negative impact on the intended therapeutic or pharmacological effect.
- b. Time-critical scheduled medications or medication classes include:
 - "STAT" and "NOW" doses
 - IV anti-infectives
 - Sedation/Analgesia
 - Immunosuppressive agents used for the prevention of solid-organ transplant rejection or to treat myasthenia gravis
 - Chemotherapy agents
 - IV anti-epileptic agents
 - IV electrolyte replacement
 - Vasopressors/Iontropes
 - Nimodipine
- c. Changes to the medications deemed time critical may occur based on performance improvement indicators or upon annual policy review.

4. Non-Time-Critical Medications

- a. These are medications for which a longer or shorter interval of time since the prior dose does not significantly change the medication's therapeutic effect or otherwise cause harm. Greater flexibility is permissible.
- b. Daily, weekly, monthly administration goal = 4 hour window (2 hours before or after scheduled dose).
- c. More frequently than daily and less than Q4HR administration goal = 2 hour window (1 hour before or after scheduled dose).

5. First Doses

- a. The Department of Pharmacy will employ the "Medication Slider" to schedule and time medication orders safely and accurately. The Slider will assist the pharmacist entering the order as to whether to give or hold the initial dose of medication and when to resume the next dose.
- b. Medications **exempt** from the "Medication Slider" and require specialized administration times are listed in **Appendix C**
- c. The Department of Pharmacy will use the table entitled "Medication Slider - Medication Administration Scheduling Guide" located in **Appendix D** of this policy and follow the

process described in the Procedure section below.

- d. If a scheduled medication dose is increased after already administered, pharmacy may enter a one-time supplemental dose to equal the most current order. Current dose will resume at its standard administration time.

6. Missed or Late Administration of Medications

- a. At times, medications eligible for scheduled dosing times are not administered within their permitted window of time. The Barcode Medication Administration Record Variance Report is provided to Nursing Leadership daily for review and follow-up related to late administration of medications. Trends identified should be reviewed for performance improvement opportunities by the patient care area.
- b. The physician or other practitioner responsible for the care of the patient must be consulted regarding missed or omitted doses for time-critical medications and medications not eligible for scheduled dosing.
- c. Adverse medication events as a result of missed or late dose administration must be reported to the attending physician and reported in MEDITECH risk module per the "Adverse Drug Reporting" policy.

7. Evaluation of Medication Administration Timing Policies

- a. This policy will be reviewed Tri-annually and as needed, including staff adherence to the policy, to confirm safe and effective medication administration. Chief Nursing Officers in conjunction with the Director of Pharmacy will be responsible for overseeing policy compliance.

SCOPE

This Policy applies to all administration of medication orders that are explicitly defined in the Policy, and to all health care practitioners authorized to administer medications to patients.

PROCEDURE

1. The pharmacist will determine if the order for the medication is exempt from using the Medication Slider. If it is an exemption, the pharmacist will schedule the medication per the "Specialized Administration Times" table located in **Appendix C**.
2. If it is not an exemption, the pharmacist will schedule the medication per the table entitled "Medication Slider - Medication Administration Scheduling Guide" located in **Appendix D**.
 - a. The pharmacist will locate the prescribed frequency of administration on the left-hand side of the table.
 - b. The pharmacist will determine when to schedule the first dose based on the current hour of the day at the time the order is being entered.
 - c. The pharmacist will determine when to schedule the next dose based on the instructions provided in slider whether to give or hold the dose, and the next scheduled administration.
3. If the patient is a new admission, the pharmacist will determine if the patient has taken the medication at home prior to admission and schedule the next dose accordingly. The pharmacist may need assistance from the patient's nurse in order to determine if medications were taken prior to admission.
4. Orders for **One-Time** orders (excluding STAT and NOW orders) will be profiled and scheduled by the pharmacist using the following lead-time and duration:
 - a. Lead-time: 3 hours
 - b. Duration: 12 hours from the scheduled start-time of the order
 - c. Example: A one-time order entered at 0915 should be scheduled by the pharmacist to start at 1200 noon and end at 2400.

REFERENCES

Barker KN, Allan EL. Fundamentals of Medication Error Research. *AJHP*.1990; 47:555–571.
 Centers for Medicare and Medicaid Services. Updated Guidance on Medication Administration, Hospital Appendix of the State Operations Manual (SOM). Available at: <http://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/downloads/R77SOMA.pdf>

APPENDIX A: STANDARD ADMINISTRATION TIMES

Frequency	Definition	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
WAKING HOUR FREQUENCIES																									
QDAY	DAILY								X																
BID	TWICE DAILY								X													X			
TID	THREE TIMES DAILY								X					X								X			
QID	FOUR TIMES A DAY								X				X				X					X			
5x/Day	Five times a day								X			X			X			X				X			
Bedtime	At bedtime																					X			
AROUND THE CLOCK FREQUENCIES																									
Q2H	EVERY 2 HOURS		X	X		X		X		X		X		X		X		X		X		X		X	
Q3H	EVERY 3 HOURS			X		X		X		X		X		X		X		X		X		X		X	
Q4H	EVERY 4 HOURS		X			X		X		X		X		X		X		X		X		X		X	
Q6H	EVERY 6 HOURS					X		X		X		X		X		X		X		X		X		X	

Q8H	EVERY 8 HOURS						X													X
Q12H	EVERY 12 HOURS							X												X
MoWeFr	Three times per week Mon, Wed, Friday							X												
TuThSa	Three times per week Tues, Thurs, Sat							X												
q36h interval	Every 36 hours from start date and time																			
q48h interval	Every 48 hours from start date and time																			
Q48h	Every other day							X												
q72h interval	Every 72 hours from start date and time																			
Q3d	Every 72 hours							X												
QWeek	Every seven days							X												

Ordered SIG	eMAR SIG	Scheduled Administrations
Daily	DAILY	0900
Daily Every Morning	QAM	0900
Twice Daily	BID	0900, 2100
Three Times Daily	TID	0900, 1500, 2100
Four Times Daily	QID	0900, 1300, 1700, 2100
Five Times Daily	5XDAY	0900, 1200, 1500, 1800, 2100
Before Breakfast	AC BK	0730
Before Meals	AC	0730, 1130, 1630
With Meals	C MEALS	0800, 1200, 1700
After Meals	PC	0900, 1300, 1800
Every 2 Hours	Q2HR	0200, 0400, 0600, 0800, 1000, 1200, 1400, 1600, 1800, 2000, 2200, 2400
Every 3 Hours	Q3HR	0300, 0600, 0900, 1200, 1500, 1800, 2100, 2400
Every 4 Hours	Q4HR	0200, 0600, 1000, 1400, 1800, 2200
Every 6 Hours	Q6HR	0600, 1200, 1800, 2400
Every 6 Hours while awake	Q6H WA	0300, 0900, 1500, 2100
Every 8 Hours	Q8HR	0600, 1400, 2200
Every 12 Hours	Q12HR	0900, 2100
Daily Every Evening	QPM	1700
Daily at Bedtime	BEDTIME	2100

APPENDIX B: RESPIRATORY THERAPY STANDARD ADMINISTRATION TIMES

- Respiratory therapy (RT) standard administration times are to start 1 hour following the start of the scheduled shift time
 - Clear Lake Regional Medical Center RT shift start time: 7 AM
 - Mainland Medical Center RT shift start time: 6 AM

CLEAR LAKE REGIONAL:

Ordered SIG	eMAR SIG	Scheduled Administrations
STAT	RTSTAT	Within 30 minutes of order
NOW	RTNOW	Within 60 minutes of order
Daily	RTDAILY	0900
Twice Daily	RTBID	0900, 2100
Three Times Daily	RTTID	0800, 1400, 2200
Four Times Daily	RTQID	0800, 1200, 1600, 2000
Every 2 Hours	RTQ2H	0200, 0400, 0600, 0800, 1000, 1200, 1400, 1600, 1800, 2000, 2200, 2400
Every 3 Hours	RTQ3H	0300, 0600, 0900, 1200, 1500, 1800, 2100, 2400
Every 4 Hours	RTQ4H	0400, 0800, 1200, 1600, 2000, 2400
Every 4 Hours while Awake	RTQ4H WA	0800, 1200, 1600, 2000
Every 6 Hours	RTQ6H	0300, 0900, 1500, 2100
Every 6 Hours while Awake	RTQ6H WA	0900, 1500, 2100
Every 8 Hours	Q8HR	0800, 1600, 2400
Every 12 Hours	Q12HR	0900, 2100

MAINLAND MEDICAL CENTER:

Ordered SIG	eMAR SIG	Scheduled Administrations
STAT	RTSTAT	Within 30 minutes of order
NOW	RTNOW	Within 60 minutes of order
Daily	RTDAILY	0900
Twice Daily	RTBID	0900, 2100
Three Times Daily	RTTID	0700, 1300, 2100
Four Times Daily	RTQID	0700, 1100, 1500, 1900
Every 2 Hours	RTQ2H	0100, 0300, 0500, 0700, 0900, 1100, 1300, 1500, 1700, 1900, 2100, 2300
Every 3 Hours	RTQ3H	0100, 0400, 0700, 1000, 1300, 1600, 1900, 2200
Every 4 Hours	RTQ4H	0300, 0700, 1100, 1500, 1900, 2300
Every 4 Hours while Awake	RTQ4H WA	0700, 1100, 1300, 1900
Every 6 Hours	RTQ6H	0100, 0700, 1300, 1900
Every 6 Hours while Awake	RTQ6H WA	0700, 1300, 1900
Every 8 Hours	Q8HR	0700, 1500, 2300
Every 12 Hours	Q12HR	0900, 2100

APPENDIX C: SPECIALIZED ADMINISTRATION TIMES

Medication	eMAR SIG	Schedule Administration
Alendronate	DAILY, Q7 DAYS AC BK, Su, Mo, Tu, We, Th., Fr, Sat	Administer at 0730, take on empty stomach 30 minutes before food/liquids. TAKE WITH WATER ONLY.
Amiodarone	BID 9A 5P	0900, 1700
Bile acid sequestrants	C BK	0800
	C BK DIN	0800, 1700
Bromocriptine (Parlodel)	C BK DIN	Administer at before breakfast and dinner (0800 and 1700) to prevent nausea
Diuretics	BID 9A 5P	0900, 1700
Efavirenz	BEDTIME	2100
HMG-CoA Reductase	BEDTIME	2100
Hypoglycemics (Oral)	BID AC	0800, 1700
Insulin - Rapid Acting (Humalog)	AC	0730, 1130, 1630
Insulin - Rapid Acting/Long Acting Mix (Humulin 70/30)	BID AC	0800, 1700
Isosorbide Dinitrate	BID 9A 5P	0900, 1700
	TID	0900, 1300, 1700
Isosorbide Mononitrate	BID 9A 5P	0900, 1700
Levothyroxine	0600	0600
Lidocaine transdermal	DAILY	0900, remove patch after 12 hours
Methylphenidate	DAILY	0900
	BID 9A 5P	0900, 1700
	TID	0900, 1300, 1700
Midodrine	BID 9A 5P	0900, 1700
	TID	0900, 1300, 1700
Pantoprazole	0600	0600
	BID 6A 6P	0600, 1800
Pentoxifylline	C BK	0800
	C BK DIN	0800, 1700
	C Meals	0800, 1200, 1700
Rivaroxaban 10 and 20 mg	QPM	1700
Rivaroxaban 15 mg	C BK DIN	0800, 1700
Total Parenteral Nutrition	2200	2200
Warfarin	QPM	1700

APPENDIX D: Medication Slider - MEDICATION ADMINISTRATION SCHEDULING GUIDE

Daily	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0900	Start dose at 0900									Give Dose & Resume at 0900 Next Day									Hold dose and start at 0900					
Daily Evening	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1700	Start dose at 1700									Give Dose & Resume at 1700 Next Day														
Bedtime	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
2100	Start dose at 2100									Give Dose & Resume at 2100 Next Day														
BID	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

09, 21	Start Dose at 0900								Give Dose & Resume at 2100							Hold Dose & Resume at 2100				Give Dose & Resume at 0900 Next Day				
TID	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
09, 15, 21	Start Dose at 0900								Give Dose & Resume at 1500			Hold Dose & Resume at 1500			Give Dose & Resume at 2100			Hold Dose & Resume at 2100			Give Dose & Resume at 0900 Next Day			
QID	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
09, 13, 17, 21	Start Dose at 0900								Give 0900 Dose		Hold Dose & Resume at 1300		Give 1300 Dose		Hold Dose & Resume at 1700		Give 1700 Dose		Hold Dose & Resume at 2100		Give Dose & Resume at 0900 Next Day			
5 Times Daily	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
09, 12, 15, 18, 21	Start Dose at 0900								Give Dose	Hold Dose	Give 1200 Dose		Hold Dose	Give 1500 Dose		Hold Dose	Give 1800 Dose	Hold Dose	Give Dose & resume at 0900 next day					
Q4H	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
01, 05, 09, 13, 17, 21	Give 0100 Dose		Hold Dose		Give 0500 Dose		Hold Dose		Give 0900 Dose		Hold Dose		Give 1300 Dose		Hold Dose		Give 1700 Dose		Hold Dose		Give 2100 Dose		Hold Dose	
Q6H	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
06, 12, 18, 24	Give 2400 Dose		Hold Dose & Resume at 0600			Give 0600 Dose		Hold Dose & Resume at 1200			Give 1200 Dose			Hold Dose & Resume at 1800			Give 1800 Dose			Hold Dose & Start at 2400		Give 2400 dose		
Q6HWA	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
03, 09, 15, 21	Hold Dose & Resume at 0300		Give 0300 Dose		Hold Dose & Resume at 0900			Give 0900 Dose			Hold Dose & Resume at 1500			Give 1500 Dose			Hold Dose & Resume at 2100			Give Dose & Resume at 0300 Next Day		Hold Dose & Resume at 0300		
Q8H	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
06, 14, 22	Give Previous Dose		Hold Dose & Resume at 0600			Give 0600 Dose			Hold Dose & Resume at 1400			Give 1400 Dose			Hold Dose & Resume at 2200			Give Dose & Resume at 0600 Next Day						
Q12H	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
09, 21	Start Dose at 0900								Give Dose & Resume at 2100							Hold Dose & Resume at 2100				Give Dose & Resume at 0900 Next Day				
Before Breakfast	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0730	Start dose at 0730								Give Dose & Resume at 0730 Next Day			Hold Dose & Start at 0730												

Attachments:

[Medication Slider - Med Administration Scheduling Guide 2017](#)

Approval Signatures

Step Description	Approver	Date
P&T Committee	Eric Richards: Dir Pharmacy	07/2018
P&T Committee	Annette Login: Director - Pharmacy	07/2018
Senior Leadership	Jaimin Modi: ACOO	07/2018
Directors	Eric Richards: Dir Pharmacy	07/2018
Directors	Annette Login: Director - Pharmacy	06/2018

Applicability

Clear Lake Regional Medical Center