UM Upper Chesapeake Health

**Dofetilide (Tikosyn)**

Place patient label here

Open box equals Prescriber’s option; must check to order. Checked boxes = automatically initiated unless unchecked.

Date: _______________  Time: _______________  Draft 5 (2/7/19)

**UMMS dofetilide Guidelines:** [click link to view]

*****This order set is REQUIRED to place dofetilide orders*****

**Dofetilide Contraindications:**
- Concomitant use of cimetidine, dolutegravir, hydrochlorothiazide (alone or with triamterene), ketoconazole, megestrol, prochlorperazine, trimethoprim (alone or with sulfamethoxazole), or verapamil; increased risk of QT-interval prolongation
- Congenital or acquired long QT syndromes (QTc interval greater than 440 msec or 500 msec for patients with ventricular conduction abnormalities)
- Hypersensitivity to dofetilide
- Severe renal impairment (CrCl less than 20 mL/min)

Section 1: **New Patients - Initiation of dofetilide Therapy:** Restricted to Cardiology providers only; complete Sections 1 and 3.

Section 2: **Continuation of dofetilide (Patients taking dofetilide prior to admission):** Any admitting provider may continue a patient’s home dose but must use this order set; a CARDIOLOGY CONSULT is required; complete Section 2 and Section 3.

Section 3: **Electrolyte Monitoring & Orders**

*****Note: Administration of this drug is restricted to IMC, ICU*****

**Section 1:** (Restricted to Cardiology Providers ONLY)

- **NEW PATIENTS - INITIATION OF DOFETILIDE THERAPY:**
  - Cardiac monitoring for a minimum of three days or for 12 hours after conversion to normal sinus rhythm, whichever is longer (telemetry lead with a visible QT interval must be selected for QTc monitoring, and all subsequent measurements of the QT interval on telemetry should use this lead).
  - *QTc baseline* (prior to initiating dofetilide); if the baseline QTc is greater than 440 msec (or greater than 500 msec in patients with ventricular conduction abnormalities), *dofetilide is contraindicated*.

  **Cardiac Monitoring**
  - Cardiac Monitor - continuous

  **Laboratory**
  - BMP baseline screen (NOW), then daily
  - Magnesium level baseline (NOW), then daily

  **Imaging/Diagnostic Tests**
  - 12-lead EKG, baseline (Nurse: Submit EKG immediately to cardiologist via Doc Halo attachment. Cardiologist will confirm if okay to administer initial dose.)

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Section 1 continued: NEW PATIENTS - INITIATION OF DOFETILIDE THERAPY:

Medication Orders

- Pharmacist: Calculate creatinine clearance using total body weight (actual weight) and adjust initial dose as below; document electronically the initial dose was appropriate based on creatinine clearance.

<table>
<thead>
<tr>
<th>CrCl (mL/min)</th>
<th>dofetilide (Tikosyn) INITIAL Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>greater than 60</td>
<td>dofetilide 500 micrograms every 12 hrs (0900 and 2100)</td>
</tr>
<tr>
<td>41 – 60</td>
<td>dofetilide 250 micrograms every 12 hrs (0900 and 2100)</td>
</tr>
<tr>
<td>20 – 40</td>
<td>dofetilide 125 micrograms every 12 hrs (0900 and 2100)</td>
</tr>
<tr>
<td>less than 20</td>
<td>dofetilide is contraindicated (pharmacist will contact the cardiologist)</td>
</tr>
</tbody>
</table>

Dofetilide Dosing Adjustment AFTER Initial Dose: (Only CARDIOLOGISTS may order adjustments)

- QTc must be measured by the cardiologist 2-3 hours after each dose of the first five (5) doses of dofetilide.
- If QTc (after the INITIAL dose) is greater than 500 msec (greater than 550 msec in patients with ventricular conduction abnormalities), Adjust dose as follows:

  (Provider, select one)

<table>
<thead>
<tr>
<th>If INITIAL Dose was:</th>
<th>Dofetilide (Tikosyn) DOSE ADJUSTMENT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 microgram twice daily</td>
<td>□ dofetilide 250 microgram every 12 hrs (0900 and 2100)</td>
</tr>
<tr>
<td>250 microgram twice daily</td>
<td>□ dofetilide 125 microgram every 12 hrs (0900 and 2100)</td>
</tr>
<tr>
<td>125 microgram twice daily</td>
<td>□ dofetilide 125 microgram once daily (0900)</td>
</tr>
</tbody>
</table>

- If the QTc interval after the second through fifth dose is greater than 500 msec (greater than 550 msec in patients with ventricular conduction abnormalities), dofetilide should be discontinued or adjusted per provider.

Discharge Planning (Required for patients new to dofetilide)

- dofetilide patient education by Pharmacist (via Micromedex) prior to discharge (Pharmacist: Document electronically). (Note: Notify pharmacist 24 hours prior to patient’s expected discharge, if possible)

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Section 2:

- CONTINUATION OF DOFETILIDE (PATIENTS TAKING DOFETILIDE PRIOR TO ADMISSION)
  
  Consults
  - Consult, Cardiology (REQUIRED)

  Laboratory
  - BMP baseline screen, then daily
  - Magnesium baseline, then daily

  Imaging/Diagnostic Tests
  - 12-lead EKG, baseline (Nurse: Submit EKG immediately to cardiology provider via Doc Halo attachment. Cardiology provider will confirm if okay to administer the first resumed home dose of dofetilide.)
  - 12-lead EKG, 2-3 hours after the first resumed dose of dofetilide (for QTc monitoring) (Nurse: Submit the EKG immediately via Doc Halo attachment to cardiology provider for review. Do NOT administer next dose until cardiology provider has reviewed the EKG and confirms okay to administer the 2nd resumed home dose)

  • QTc baseline (must be measured 2-3 hours after the first resumed dose of dofetilide).
    - If QTc is less than 500 msec, no additional EKG monitoring is required.
    - If QTc is greater than 500 msec (greater than 550 msec in patients with ventricular conduction abnormalities), the dose should be adjusted:
      - Discontinue current dofetilide orders and cardiologist to place new orders using the New Patient section above.
      - If dofetilide therapy is to be continued, the patient must be hospitalized for three days and monitored on the new dose according to the initiation policy.
    - QTc greater than 500 msec (greater than 550 msec in patients with ventricular conduction abnormalities) at any time on the adjusted dose, dofetilide should be discontinued.

Medication Order

PATIENTS ON MAINTENANCE DOSE AND STABLE: (dose, frequency) (GIVE DOFETILIDE AT THE SAME TIME DAILY)

- dofetilide ________ micrograms PO every ________ hours. (standardized admin times are: 0900, 2100)

  [Pharmacist]: Calculate CrCL using total body weight (actual weight). Document electronically the dose was appropriate based on creatinine clearance.

  [Nurse]: Do not administer the 1st or the 2nd resumed dose from home until the Cardiology provider has reviewed the EKG and confirms it is okay to administer each of these doses.

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Section 3: (Should be completed for both new & continuing dofetilide patients)

ELECTROLYTES MONITORING AND ORDERING

- **Potassium:**
  - Maintain Potassium concentrations greater than or equal to 4.0 mmol/L. (Avoid if CrCl is less than 20)
  - If potassium is less than 4.0 mmol/L, administer supplemental potassium PRIOR TO dofetilide administration:

  | Potassium (KCl) Replacement Orders (Maximum Rate of Potassium Infusion is 10mEq/hr) |
  | --- | --- |
  | If K+ Level: | Administer: |
  | 3.3 - 4 mEq/L | KCl 10 mEq/100 mL IV every 1 hr over 1 hour times 4 doses (for IMC or ICU patients) |
  | 2.9 - 3.2 mEq/L | KCl 10 mEq/100 mL IV every 1 hr over 1 hour times 8 doses (for IMC or ICU patients) |
  | less than 2.9 | KCl 10 mEq/100 mL IV every 1 hr over 1 hour times 8 doses and notify cardiologist and ordering provider. |

- **Magnesium:**
  - Maintain Magnesium concentrations greater than or equal to 2.0 mmol/L. (Avoid if CrCl is less than 20)
  - If magnesium is less than 2.0 mmol/L, administer supplemental magnesium PRIOR TO dofetilide administration:

<table>
<thead>
<tr>
<th>Magnesium Replacement Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>If Magnesium Level:</td>
</tr>
<tr>
<td>1.6 - 1.9 mEq/L</td>
</tr>
<tr>
<td>1.3 - 1.59 mEq/L</td>
</tr>
<tr>
<td>Less than 1.3 mEq/L</td>
</tr>
</tbody>
</table>

Authorized Prescriber Signature: ______________________ Date: ________ Time: ________

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