GLAXOSMITHKLINE SAFETY ADVISORY

Date: September 2016

Flolan® 0.5 mg Powder and Solvent for Solution for Infusion (PL 10949/0310)
Flolan® 1.5 mg Powder and Solvent for Solution for Infusion (PL 10949/0312)
Flolan® (epoprostenol) – Introduction of new sterile solvent with different pH; temporary availability of two different formulations.

Dear Healthcare Professional

A new formulation of Flolan (with Solvent pH 12) will be available (from 14th October 2016) with differences in storage and administration from the current formulation (with Solvent pH 10.5). There will be overlap in availability in this new formulation with the current one – until April 2017.

Reconstituted Flolan with pH 12 Solvent (the new formulation) is more thermostable, which eliminates the need for use of a cold pouch/ice pack during administration.

Key Messages for Healthcare Professionals

• Flolan (with Solvent pH 10.5) should continue to be used with a cold pouch/ice pack. Failure to do so may result in possible decrease in efficacy due to drug degradation.

• It is recommended that when healthcare professionals are writing a Flolan prescription for a patient with PAH, they should make it clear to the pharmacist/homecare provider, which formulation they are requesting for the patient.

• It is recommended that if a pharmacist receives a prescription, where it is unclear whether it should be dispensed as the pH 10.5 or pH 12 formulation, this should be clarified with the prescribing physician.

• Please ensure patients receiving Flolan for their PAH receive advice and information on the changes in storage/administration and that their dose should be unchanged.

Materials are being provided to healthcare professionals involved in the use of Flolan for PAH to help with smooth transition of patients from the current formulation to the new formulation. Further supplies can also be obtained by contacting our UK Customer Contact Centre on 0800 221 441. Please ensure all healthcare professionals who prescribe Flolan in your unit/hospital are aware of this information.
## IMPORTANT INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>CURRENT FORMULATION</th>
<th>NEW FORMULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flolan solution</strong></td>
<td>Flolan solution prepared with Solvent for Solution for Infusion (pH 10.5)</td>
<td>Flolan solution prepared with reformulated Solvent for Solution for Infusion (pH 12)</td>
</tr>
<tr>
<td><strong>EAN Codes</strong></td>
<td>5010706001923 5010706008663</td>
<td>5000123114498 5000123114504</td>
</tr>
<tr>
<td><strong>PIP Codes</strong></td>
<td>338-5978 278-3777</td>
<td>403-4989 403-4997</td>
</tr>
<tr>
<td><strong>Availability</strong></td>
<td>Current formulation, to be phased out (supplies will remain available until April 2017)</td>
<td>NEW more thermostable formulation, available from 14th October 2016.</td>
</tr>
<tr>
<td><strong>Storage (PAH)</strong></td>
<td>Freshly prepared solutions should be used within 12 hours at 25°C.</td>
<td>Freshly prepared solutions for infusion can be administered immediately or stored for up to 8 days at 2°C to 8°C prior to administration. Following this preparation or storage, the solution for infusion should be used within:</td>
</tr>
<tr>
<td></td>
<td>or</td>
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<tr>
<td></td>
<td>May be stored for up to 40 hours between 2°C and 8°C and then used within 8 hours at 25°C.</td>
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<td></td>
<td>The maximum storage and in-use time when maintained between 2°C and 8°C must not exceed 48 hours.</td>
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<tr>
<td></td>
<td>When the infusion pump allows the use of a cold pouch, the solution in the infusion pump must be used within a 24 hour period, provided the cold pouch is changed as necessary throughout the day.</td>
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<tr>
<td><strong>Storage (Renal)</strong></td>
<td>Reconstituted solutions, prepared in real time, must not be administered over more than 12 hours when they are used at room temperature (between 15°C and 25°C). They should be kept under 25°C and protected from light. It is possible to refrigerate Flolan reconstituted solutions, before they are used at room temperature, ranging between 2°C and 8°C and without exceeding 40 hour storage. In this case, the solutions should not be used over more than 8 hours when administered at room temperature.</td>
<td>Freshly prepared solutions for infusion (either as a concentrated solution or a further diluted solution) can be administered for up to 12 hours at up to 25°C.</td>
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</tbody>
</table>
## Packaging

<table>
<thead>
<tr>
<th>Flolan solution prepared with Solvent for Solution for Infusion (pH 10.5)</th>
<th>Flolan solution prepared with reformulated Solvent for Solution for Infusion (pH 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>0.5 mg pack</strong></td>
<td></td>
</tr>
<tr>
<td>Note: Yellow cap on glass bottle containing Solvent</td>
<td>Note: Purple cap on plastic bottle containing Solvent</td>
</tr>
<tr>
<td><strong>1.5 mg pack</strong></td>
<td></td>
</tr>
<tr>
<td>Note: Yellow cap on glass bottle containing Solvent</td>
<td>Note: Purple cap on plastic bottle containing Solvent</td>
</tr>
</tbody>
</table>

## Therapeutic Indications

Flolan® (epoprostenol) is indicated for:

- The treatment of pulmonary arterial hypertension (PAH) (idiopathic or heritable PAH and PAH associated with connective tissue diseases) in patients with WHO Functional Class III-IV symptoms to improve exercise capacity and
- For use in haemodialysis in emergency situations when use of heparin carries a high risk of causing or exacerbating bleeding or when heparin is otherwise contraindicated.

## Actions Being Taken by GlaxoSmithKline

Packaging:

- The packaging has changed and you will be able to clearly distinguish the reformulated solvent with a statement on the external carton of Flolan highlighting the change to the solvent, “New formulation of solvent (pH 12)- read leaflet inside before use”. This statement will be present on the external carton for approximately 6 months following introduction of the reformulated (pH 12) solvent.
• The predominant colour on the top of the external box packaging has changed from white to blue for 0.5 mg Flolan, and from white to deep red for 1.5 mg Flolan. The flip-top lid colour on the solvent bottle has also been changed from yellow to purple to ensure that the reformulated (pH 12) Solvent for Solution for Infusion looks different from Solvent for Solution for Infusion (pH 10.5). The reformulated Solvent for Solution (pH 12) for Infusion can be further distinguished as it is contained in a plastic vial compared to the glass vial of Solvent for Solution (pH 10.5) for Infusion.

• These changes are intended to minimise any potential for medication errors given the different instructions related to storage and administration of the two formulations.

• The Summary of Product Characteristics (SmPC) and Patient Information Leaflet (PIL) for Flolan have been updated to include information regarding use of the reformulated (pH 12) Solvent for Solution for Infusion.

Summary of Product Characteristics and PIL

• The new full SmPC and copies of the new PIL including information for Flolan solution reconstituted with reformulated (pH 12) Solvent for Solution for Infusion are available from the EMC website http://www.medicines.org.uk/emc/.

• Please note that during the period when both versions of the solvent formulation are available, both sets of SmPC and PIL will be available on http://www.medicines.org.uk/emc/.

Support Materials:

➢ A range of materials to support the healthcare professional and PAH patient in the transition, if you have not already received these via your local GSK contact, please contact our Customer Contact Centre on 0800 221 441 and we will ensure we send supplies to you directly.

Action required by Health Care Providers

➢ You are advised to read the revised SmPC (available on (http://www.medicines.org.uk/emc/) relating to use of the reformulated (pH 12) Solvent for Solution for Infusion for preparation of Flolan solution. Please share this information with relevant health care personnel under your supervision/in your unit/hospital.

➢ You are advised to ensure patients being treated for PAH with Flolan are aware of the reformulated (pH 12) Solvent for Solution for Infusion as well as appropriate instructions for reconstitution, storage and administration of Flolan prepared with the reformulated (pH 12) Solvent for Solution for Infusion.

➢ Should a patient be transitioned from Flolan prepared with the reformulated (pH 12) Solvent for Solution for Infusion to another intravenous prostanoid therapy in the future, please ensure that the patient understands any differences in reconstitution, storage, and administration occurring as a result of that change.

If you would like a member of the our Medical team to discuss the content of the letter with you in more detail, please contact the Customer Contact Centre on 0800 221 441.

Adverse event reporting:

Adverse events should be reported. For the UK reporting forms and information can be found at www.mhra.gov.uk/yellowcard. Adverse events should also be reported to GlaxoSmithKline on 0800 221 441.
Further Information

- Medical Information for GSK Prescription medicines: Tel: +44 (0)800 221 441. 8:30am to 5:30pm GMT Monday - Friday. An out of hours service is also provided for emergencies which goes to an external provider outside of the times stated.

Yours faithfully

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