Management of Patients with Heart Failure-Reduced Ejection Fraction (HFrEF)

Glossary: LVEF – left ventricular ejection fraction; ACE-I – angiotensin converting enzyme inhibitor; ARB – angiotensin receptor blocker; ARNI – angiotensin receptor neprilysin inhibitor; MRA – mineralocorticoid receptor antagonist; ICD – implanted cardioverter defibrillator; CRT – cardiac resynchronisation therapy with (D) defibrillator, (P) pacemaker

Author: R Weir
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Note: Order in which HFrEF medications added may vary from this guideline under care of cardiologists or heart failure nurses only
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SGLT2 inhibitors – Additional Guidance

Exclusion criteria for initiation of dapagliflozin or empagliflozin in HFrEF

1. Type 1 diabetes mellitus
2. eGFR <30mL/min (see Table 1)
3. Previous intolerance of SGLT2 inhibitors
4. Systolic BP <95mmHg

Table 1: Dose adjustment recommendations in HFrEF

<table>
<thead>
<tr>
<th>CKD Stage (ml/min/1.73m²)</th>
<th>Stages G1 &amp; G2 eGFR&gt;60</th>
<th>Stage G3a eGFR&gt;45-59</th>
<th>Stage G3b eGFR&gt;30-44</th>
<th>Stage 4 eGFR&gt;15-30</th>
<th>Stage G5 eGFR&lt;15</th>
<th>Severe hepatic impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dapagliflozin</td>
<td>Initiate 10mg once daily in those with HFrEF with or without T2DM</td>
<td>No dose adjustment required based on renal function. Limited experience in HFrEF in patients with eGFR &lt;30. Consider discussion with secondary care.</td>
<td></td>
<td></td>
<td>Start dose 5mg daily</td>
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<tr>
<td>Empagliflozin</td>
<td>Initiate 10mg once daily in those with HFrEF with or without T2DM</td>
<td>No dose adjustment required based on renal function. Limited experience in HFrEF in patients with eGFR &lt;30. Consider discussion with secondary care.</td>
<td>It is not recommended in patients with eGFR &lt;15.</td>
<td></td>
<td>Start dose 5mg daily</td>
<td></td>
</tr>
</tbody>
</table>

Biochemical monitoring after commencement of SGLT2 inhibitors

U&Es check 4 weeks after commencement, then as per standard monitoring for HFrEF patients as per local GP practice procedures. Care of the patient and titration of doses remains with the specialised service until the patient’s care is optimised.

Sick Day Guidance - to be reiterated to patients at every opportunity

When unwell (acute illness: fevers, sweats, rigors, vomiting, diarrhoea, fasting etc.) Omit SGLT2 inhibitors (caution also with renin-angiotensin-aldosterone system blockers and diuretics). Diabetic patients should undertake ketone monitoring if acutely unwell as is standard practise.


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