Conclusions

Lenalidomide (LEN) is an oral immunomodulatory medication approved in the United States for patients with lower-risk, transfusion-dependent myelodysplastic syndromes (MDS) with del(5q) with or without additional cytogenetic abnormalities:

- The goal of LEN treatment is to reduce or eliminate red blood cell transfusion dependence.
- A recent analysis of the Celgene Global Drug Safety database showed that non-serious rash was the leading cause of permanent early discontinuation of LEN in MDS in the postmarketing setting.
- 26% of non-serious rash events led to permanent LEN discontinuation.
- The majority of discontinuations due to non-serious rash occurred within the first 2 cycles (8 weeks) of treatment.
- The real-world data contrasted with clinical trial experiences, where rash led to no or low rates of discontinuation.

This suggests differences in real-world management of rash vs. that in clinical trials:
- These differences may be attributable to an educational gap among oncology practitioners who treat patients with LEN.
- It may take ≥ 3 cycles of LEN treatment to achieve transfusion independence.
- Therefore, early recognition and proper management of rash by advanced practitioners in oncology may reduce morbidity and extend treatment to optimize outcomes in LEN-treated patients with MDS.

Purpose

To provide a practical guide to management of LEN-related rash in patients with MDS, including:

- Identification of the physiology, signs, and symptoms of LEN-related rash.
- Grading of rash.
- Management of rash.
- Patient communication tips.

Identification and Management of LEN-Related Rash

<table>
<thead>
<tr>
<th>Grade</th>
<th>Example</th>
<th>Description</th>
<th>Label Recommendations</th>
<th>Published Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&lt; 10% of BSA</td>
<td>No action recommended</td>
<td>Treat with topical corticosteroids and oral antihistamines until grade ≤ 1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>10%–30% of BSA</td>
<td>Consider interruption or discontinuation</td>
<td>Treat with topical corticosteroids and oral antihistamines until grade ≤ 1; consider dose interruption for intolerable grade 2 rash</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>&gt; 30% of BSA</td>
<td>Consider interruption or discontinuation</td>
<td>Treat with oral antihistamines or oral corticosteroids until rash is grade ≤ 1; consider dose interruption</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Photo not available</td>
<td>Life-threatening consequences; urgent intervention indicated</td>
<td>Permanent discontinuation</td>
<td>No additional published recommendations</td>
</tr>
</tbody>
</table>

Stevens-Johnson Syndrome

< 10% of BSA separation of dermis

Permanent discontinuation

No additional published recommendations

Toxic epidermal necrolysis

> 30% of BSA separation of dermis

Permanent discontinuation

No additional published recommendations

Key aspects of rash identification and management include:

- Providing information to patients about identifying and communicating early signs of rash.
- Being aware of symptoms.
- Applying appropriate levels of intervention.
- Involving patients in self-reporting early signs of rash through upfront educational initiatives.

References

7. National Cancer Institute. Common Terminology Criteria for Adverse Events (CTCAE). These descriptions have been generated by grade and body surface area sites.

Patient Communication Tips

- Patients can be educated in advance using rash photos and explanations of how rash is treated and can be encouraged to promptly report signs of skin problems.
- Practitioners should emphasize that it can take time to experience the full benefits of LEN treatment, so supportive care or dose interruption is preferable to discontinuation when appropriate.
- Early detection and management of rash can help to optimize treatment with LEN in terms of dose and duration to maximize clinical outcomes.
- Patients can be asked to describe the appearance of their medication and label, to ensure that the practitioner is aware of the current dosing (Table 2).
- The approved starting dose of LEN for patients with MDS is 10 mg.
- Dose adjustments may also involve 5-mg or 2.5-mg capsules.

Dose | Label | Capsule
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>10 mg</td>
<td>Yellow</td>
<td>Blue-green and pale yellow</td>
</tr>
<tr>
<td>5 mg</td>
<td>Magenta</td>
<td>White opaque</td>
</tr>
<tr>
<td>2.5 mg</td>
<td>Gray</td>
<td>White and blue-green</td>
</tr>
</tbody>
</table>

Table 2. Identification of LEN Dosage

Presented at JADPRO LVE; January 24-26, 2014; St. Petersburg, FL.