**Introduction**

- Evaluate data surrounding a documented penicillin allergy
- Identify current trends in management of a reported penicillin allergy

**Background**

- Penicillin most commonly reported allergy in U.S.
- 90% aren’t truly allergic
- 80% lose overall sensitivity after 10 years
- Major barrier to appropriate antibiotic use
- Associated with antibiotic resistance
- Providers are more likely to avoid penicillin, rather than clarify allergy
- Penicillin Skin Testing is performed by board-certified allergist in the outpatient setting to confirm true allergy

**Purpose**

- Evaluate current documentation and management practices
- Identify opportunities to improve current documentation, clinical management, and increase referral practices

**Methods**

- Retrospective chart review
- Adult patients with documented penicillin allergy in 2019
- Internal medicine department within a large, multi-specialty medical practice

**Results**

- 749 total patients
- Majority were Female, White, or Non-Hispanic/Latino
- Most common types were ‘Penicillins’ and ‘Penicillin’
- 44 patients reported an ‘unknown’ allergic reaction
- 10.5% of allergic reactions reported were true ‘Allergy or Hypersensitivity’
- 68% had an onset date ‘More than 10 years’ or ‘Unknown’
- 5 patients had allergy referral ordered

**Discussion**

- Comprehensive allergy assessment is necessary to improve EHR allergy documentation and current management practices
- Re-design EHR allergy tab
- Allergy services are currently under-utilized
- Need to close gap between primary care and allergy
- CDS tools can be used to prompt allergy referral

**Implications**

- Prescribe future antibiotics
- Appropriate antibiotic use
- Need education and increase awareness
- U.S. healthcare policies support comprehensive penicillin allergy assessment
- Reduces patient costs
- Decreases healthcare expenditure

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**Table: Documented Allergic Reactions**

<table>
<thead>
<tr>
<th>Documented Allergic Reactions</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urticaria</td>
<td>14</td>
</tr>
<tr>
<td>Unknown</td>
<td>44</td>
</tr>
<tr>
<td>Anaphylaxis</td>
<td>7</td>
</tr>
<tr>
<td>Rash</td>
<td>42</td>
</tr>
<tr>
<td>GI upset</td>
<td>8</td>
</tr>
<tr>
<td>Angioedema</td>
<td>14</td>
</tr>
<tr>
<td>SJS</td>
<td>1</td>
</tr>
<tr>
<td>Tachycardia</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
</tr>
<tr>
<td>Family History</td>
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</tr>
<tr>
<td>Mental Status Change</td>
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</tr>
<tr>
<td>Not documented</td>
<td>601</td>
</tr>
<tr>
<td>Tested Negative</td>
<td>5</td>
</tr>
<tr>
<td>Serum Sickness</td>
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</tr>
</tbody>
</table>

**Documented Reaction**

- 81% didn’t have an allergic reaction documented
- Less than 1% (n = 5) had allergy referral ordered

**Graph: Referrals to Allergy**

- 99%
- 1%