The 2020 AST Education Needs Assessment Survey was distributed to all AST members from February 6 to March 6, 2020. The survey included a topical specialty section based on each of AST’s Communities of Practice (COP).

175 participants began the “Pharmacy” specialty section and 152 completed the section. A breakdown of the information gathered from these participants is provided in this report.

I. “Pharmacy” Specialty Section Participants

Role of Participants:

Participants were asked, “Which best describes you? (please choose one).” Based on the 175 participants who started the TxPharm COP specialty section, the chart below outlines the roles that were represented (results from all participants in the survey are provided for comparison).

<table>
<thead>
<tr>
<th>Role</th>
<th>Specialty Participants</th>
<th>Overall Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician/Primarily Research</td>
<td>5 (2.9%)</td>
<td>65 (8.7%)</td>
</tr>
<tr>
<td>Physician/Primarily Clinical</td>
<td>43 (24.6%)</td>
<td>316 (42.4%)</td>
</tr>
<tr>
<td>Surgeon/Primarily Research</td>
<td>2 (1.1%)</td>
<td>12 (1.6%)</td>
</tr>
<tr>
<td>Surgeon/Primarily Clinical</td>
<td>4 (2.3%)</td>
<td>45 (6.0%)</td>
</tr>
<tr>
<td>Administrator</td>
<td>5 (2.9%)</td>
<td>34 (4.6%)</td>
</tr>
<tr>
<td>Advanced Practice Provider</td>
<td>16 (9.1%)</td>
<td>43 (5.8%)</td>
</tr>
<tr>
<td>Histocompatibility Specialist</td>
<td>1 (0.6%)</td>
<td>23 (3.1%)</td>
</tr>
<tr>
<td>Nurse/Transplant Coordinator</td>
<td>2 (1.1%)</td>
<td>16 (2.1%)</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>92 (52.6%)</td>
<td>104 (14.0%)</td>
</tr>
<tr>
<td>Psychologist/Psychiatrist</td>
<td>1 (0.6%)</td>
<td>12 (1.6%)</td>
</tr>
<tr>
<td>Social Worker</td>
<td>0</td>
<td>19 (2.6%)</td>
</tr>
<tr>
<td>Researcher/Scientist</td>
<td>3 (1.7%)</td>
<td>37 (5.0%)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (0.6%)</td>
<td>19 (2.6%)</td>
</tr>
</tbody>
</table>
**Affiliation of Participants:**

Participants were asked what is their "Affiliation (please choose one.)" Based on the 175 participants who started the TxPharm COP specialty section, the chart below outlines the affiliations that were represented (results from all participants in the survey are provided for comparison).

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>Specialty Participants</th>
<th>Overall Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>70 (40.0%)</td>
<td>427 (57.3%)</td>
</tr>
<tr>
<td>Government or Military</td>
<td>1 (0.6%)</td>
<td>9 (1.2%)</td>
</tr>
<tr>
<td>Hospital</td>
<td>97 (55.4%)</td>
<td>256 (34.4%)</td>
</tr>
<tr>
<td>Industry</td>
<td>5 (2.9%)</td>
<td>16 (2.1%)</td>
</tr>
<tr>
<td>Organ Procurement Organization</td>
<td>1 (0.6%)</td>
<td>15 (2.0%)</td>
</tr>
<tr>
<td>Stand-alone Private Practice</td>
<td>1 (0.6%)</td>
<td>13 (1.7%)</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>9 (1.2%)</td>
</tr>
</tbody>
</table>

**Experience Level of Participants:**

Participants were asked to “Please enter your level of experience/years in practice." Based on the 175 participants who started the TxPharm COP specialty section, the chart below outlines the levels of experience that were represented (results from all participants in the survey are provided for comparison).

<table>
<thead>
<tr>
<th>Level of Experience</th>
<th>Specialty Participants</th>
<th>Overall Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not yet in training</td>
<td>0</td>
<td>5 (0.7%)</td>
</tr>
<tr>
<td>In training (resident)</td>
<td>7 (4.0%)</td>
<td>16 (2.1%)</td>
</tr>
<tr>
<td>In training (fellow)</td>
<td>6 (3.4%)</td>
<td>46 (6.2%)</td>
</tr>
<tr>
<td>&lt;5 years</td>
<td>62 (35.4%)</td>
<td>182 (24.4%)</td>
</tr>
<tr>
<td>6-10 years</td>
<td>38 (21.7%)</td>
<td>147 (19.7%)</td>
</tr>
<tr>
<td>11-15 years</td>
<td>25 (14.3%)</td>
<td>123 (16.5%)</td>
</tr>
<tr>
<td>16-20 years</td>
<td>17 (9.7%)</td>
<td>81 (10.9%)</td>
</tr>
<tr>
<td>21+ years</td>
<td>20 (11.4%)</td>
<td>145 (19.7%)</td>
</tr>
</tbody>
</table>
II. TxPharm COP’s “Pharmacy” Specialty Section Data

A list of important and timely topics was created for the 2020 Needs Assessment Survey specialty sections by TxPharm COP Leadership and the AST Education Committee. Participants were asked to “Rate each educational topic’s importance to you” as either 1) “Not interested,” 2) “Interested but have sufficient knowledge” or 3) “Interested & want/need to learn more.”

Here are the results from the 152 participants who completed this specialty section.

TxPharm COP Specialty Topics – Overall Ranking: The topic list has been ranked below based on a weighted mean score of up to 3.0, with “Interested & want/need to learn more” weighted highest, “Interested but have sufficient knowledge” weighted next highest, and “Not interested” weighted lowest (out of 152 results).

1. (Tied) Medication management of comorbidities and complications: 2.70  
(Tied) Managing adverse events from immunosuppression and prophylaxis: 2.70
3. Managing complications with polypharmacy: 2.64
4. (Tied) Patient education best practices (medication counseling, use of technology, using MedAction Plan or other strategies, etc.): 2.57  
(Tied) Pharmacist/physician inpatient collaborative practice agreements, benefits of these arrangements and strategies for implementation: 2.57
6. Role of decision support tools to guide transplant medication prescribing: 2.56
7. The use of technology in transplant pharmacy (video medication education, mobile applications for adherence): 2.55
8. Pharmacist/physician outpatient collaborative practice agreements, benefits of these arrangements and strategies for implementation: 2.47
9. Ambulatory Transplant Pharmacy hot topics (insurance issues, patient assistance programs, clinic expansion and/or coverage, etc.): 2.40
10. Meeting CMS policies and requirements for transplant pharmacists in all phases of care: 2.28

TxPharm COP Specialty Topics – “Interested and want/need to learn more” Only: The topic list has been ranked below based exclusively on the number of “Interested and want/need to learn more” results (out of 152 results).

1. Medication management of comorbidities and complications: 117
2. (Tied) Role of decision support tools to guide transplant medication prescribing: 112  
(Tied) Patient education best practices (medication counseling, use of technology, using MedAction Plan or other strategies, etc.): 112
5. The use of technology in transplant pharmacy (video medication education, mobile applications for adherence): 111
6. Managing complications with polypharmacy: 110
7. Pharmacist/physician inpatient collaborative practice agreements, benefits of these arrangements and strategies for implementation: 109
8. Pharmacist/physician outpatient collaborative practice agreements, benefits of these arrangements and strategies for implementation: 103
9. Ambulatory Transplant Pharmacy hot topics (insurance issues, patient assistance programs, clinic expansion and/or coverage, etc.): 100
10. Meeting CMS policies and requirements for transplant pharmacists in all phases of care: 84
TxPharm COP Specialty Topics – “Not interested” Only: The following topics received the highest number of “Not interested” results (out of 152 results).

- Meeting CMS policies and requirements for transplant pharmacists in all phases of care: 42
- Ambulatory Transplant Pharmacy hot topics (insurance issues, patient assistance programs, clinic expansion and/or coverage, etc.): 39
- Pharmacist/physician outpatient collaborative practice agreements, benefits of these arrangements and strategies for implementation: 31
- Role of decision support tools to guide transplant medication prescribing: 27
- The use of technology in transplant pharmacy (video medication education, mobile applications for adherence): 27
- Patient education best practices (medication counseling, use of technology, using MedAction Plan or other strategies, etc.): 26
- Pharmacist/physician inpatient collaborative practice agreements, benefits of these arrangements and strategies for implementation: 23

Please see the pie charts on the following pages for a topic-by-topic breakdown of participant interest in each topic.

If you have follow-up questions, or would like additional details on a result, please contact the AST Education Program Manager, Brian Valeria (bvaleria@myast.org) for more information.
**Meeting CMS policies and requirements for transplant pharmacists in all phases of care**

- Not interested, 27.63%
- Interested but have sufficient knowledge, 17.11%
- Interested & want/need to learn more, 55.26%

**Ambulatory Transplant Pharmacy hot topics (insurance issues, patient assistance programs, clinic expansion and/or coverage, etc.)**

- Not interested, 25.66%
- Interested but have sufficient knowledge, 8.55%
- Interested & want/need to learn more, 65.79%
Pharmacist/physician inpatient collaborative practice agreements, benefits of these arrangements and strategies for implementation

- Not interested, 15.13%
- Interested but have sufficient knowledge, 13.16%
- Interested & want/need to learn more, 71.71%

Pharmacist/physician outpatient collaborative practice agreements, benefits of these arrangements and strategies for implementation

- Not interested, 20.39%
- Interested but have sufficient knowledge, 11.84%
- Interested & want/need to learn more, 67.76%
Managing adverse events from immunosuppression and prophylaxis

- Not interested, 3.29%
- Interested but have sufficient knowledge, 23.03%
- Interested & want/need to learn more, 73.68%

Patient education best practices (medication counseling, use of technology, using MedAction Plan or other strategies, etc.)

- Not interested, 17.11%
- Interested but have sufficient knowledge, 9.21%
- Interested & want/need to learn more, 73.68%
Managing complications with polypharmacy

- Not interested, 8.55%
- Interested but have sufficient knowledge, 19.08%
- Interested & want/need to learn more, 72.37%

Medication management of comorbidities and complications

- Not interested, 7.24%
- Interested but have sufficient knowledge, 15.79%
- Interested & want/need to learn more, 76.97%
Role of decision support tools to guide transplant medication prescribing

- Not interested, 17.76%
- Interested but have sufficient knowledge, 8.55%
- Interested & want/need to learn more, 73.68%

The use of technology in transplant pharmacy (video medication education, mobile applications for adherence)

- Not interested, 17.76%
- Interested but have sufficient knowledge, 9.21%
- Interested & want/need to learn more, 73.03%