

2020 Education Needs Assessment Report – TCC COP

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).

111 participants began the “Cardiology/Pulmonology/Critical Care” specialty section and 99 completed the section. A breakdown of the information gathered from these participants is provided in this report.

I. “Cardiology/Pulmonology/Critical Care” Specialty Section Participants

Role of Participants:

Participants were asked, “Which best describes you? (please choose one).” Based on the 111 participants who started the TCC COP specialty section, the chart below outlines the roles that were represented (results from all participants in the survey are provided for comparison).

Role	Specialty Participants	Overall Participants
Physician/Primarily Research	6 (5.4%)	65 (8.7%)
Physician/Primarily Clinical	41 (36.9%)	316 (42.4%)
Surgeon/Primarily Research	2 (1.8%)	12 (1.6%)
Surgeon/Primarily Clinical	4 (3.6%)	45 (6.0%)
Administrator	7 (6.3%)	34 (4.6%)
Advanced Practice Provider	11 (9.9%)	43 (5.8%)
Histocompatibility Specialist	1 (0.9%)	23 (3.1%)
Nurse/Transplant Coordinator	4 (3.6%)	16 (2.1%)
Pharmacist	23 (20.7%)	104 (14.0%)
Psychologist/Psychiatrist	1 (0.9%)	12 (1.6%)
Social Worker	3 (2.7%)	19 (2.6%)
Researcher/Scientist	2 (1.8%)	37 (5.0%)
Other	6 (5.4%)	19 (2.6%)

Affiliation of Participants:

Participants were asked what is their “*Affiliation (please choose one.)*” Based on the 111 participants who started the TCC COP specialty section, the chart below outlines the affiliations that were represented (results from all participants in the survey are provided for comparison).

Affiliation	Specialty Participants	Overall Participants
Academic	48 (43.2%)	427 (57.3%)
Government or Military	2 (1.8%)	9 (1.2%)
Hospital	53 (47.8%)	256 (34.4%)
Industry	1 (0.9%)	16 (2.1%)
Organ Procurement Organization	1 (0.9%)	15 (2.0%)
Stand-alone Private Practice	3 (2.7%)	13 (1.7%)
Other	3 (2.7%)	9 (1.2%)

Experience Level of Participants:

Participants were asked to “*Please enter your level of experience/years in practice.*” Based on the 111 participants who started the TCC 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).

Level of Experience	Specialty Participants	Overall Participants
Not yet in training	0	5 (0.7%)
In training (resident)	1 (0.9%)	16 (2.1%)
In training (fellow)	4 (3.6%)	46 (6.2%)
<5 years	33 (29.7%)	182 (24.4%)
6-10 years	20 (18.0%)	147 (19.7%)
11-15 years	21 (18.9%)	123 (16.5%)
16-20 years	12 (10.8%)	81 (10.9%)
21+ years	20 (18.0%)	145 (19.7%)

II. TCC COP's "Cardiology/Pulmonology/Critical Care" Specialty Section Data

TCC COP Question on Primary Interest: At the start of the Cardiology/Pulmonology/Critical Care section, participants were asked "My primary interest is: ...? (select one)" Here are the results.

Primary Interest	No# of Times Selected
Cardiology	34 (34.3%)
Pulmonology	29 (29.3%)
Critical Care	21 (21.2%)
Cardiac Surgery	9 (9.1%)
Thoracic Surgery	6 (6.1%)

TCC COP Topic Lists:

A list of important and timely topics was created for the 2020 Needs Assessment Survey specialty sections by TCC 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."

A separate list was created for both Cardiology and Pulmonology topics. Each member who selected the "Cardiology/Pulmonology/Critical Care" specialty was asked to provide feedback on both lists.

Below are the results from the 99 participants who completed this specialty section. Cardiology and Pulmonology topic results will be listed separately to mirror the format of the survey.

TCC COP (Heart) 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 99 results).

1. Use of ex-vivo donor organ systems and donation after circulatory death (DCD) in thoracic transplantation: 2.47
2. Significance, identification and treatment of post-cardiac transplant AMR and circulating antibodies (includes HLA, non-HLA, non-specific and donor-specific antibodies): 2.32
3. Novel immunosuppressants: Applicability to heart transplantation: 2.31
4. Short term support for severe heart failure patients (use of ECMO and percutaneous temporary assist devices): 2.26
5. Approach to the sensitized patient awaiting heart transplantation: 2.24
6. Update on immune monitoring of the heart transplant recipient: 2.22
7. Understanding donor heart primary graft dysfunction: 2.21
8. The role of mTor-inhibitors in heart transplantation: 2.16
9. Role of induction therapy in heart transplantation: Search for evidence: 2.12
10. Pulmonary hypertension – Management approach prior to heart transplantation: 2.11
11. Donor heart selection and management – standard and extended criteria donors: 2.09
12. US heart allocation issues – Current and future areas for discussion: 2.08
13. Approach to mechanical support in end-stage heart disease: 2.07
14. Microbiome of the heart transplant recipient and impact on outcome: 2.06

TCC COP (Lung) 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 99 results).

1. Lung Support Devices: ECMO and beyond: 2.18
2. (Tied) Use of ex-vivo donor organ systems and donation after circulatory death (DCD) in lung transplantation: 2.16
(Tied) Significance, identification and treatment of post-lung transplant AMR and circulating antibodies (includes HLA, non-HLA, non-specific and donor-specific: 2.16
4. Novel immunosuppressants: Applicability to lung transplantation: 2.15
5. Lung transplant: challenging recipient selection issues: 2.14
6. Approach to the sensitized patient awaiting lung transplantation: 2.13
7. Understanding lung transplant primary graft dysfunction: 2.11
8. US lung allocation issues – Current and future areas for discussion: 2.10
9. Donor lung selection and management – standard and extended criteria donors: 2.09
10. Approach to mechanical support in end-stage lung disease: 2.08
11. (Tied) Microbiome of the lung transplant recipient and impact on outcome: 2.06
(Tied) Update on immune monitoring of the lung transplant recipient: 2.06
13. (Tied) Pulmonary hypertension – Management approach prior to lung transplantation: 2.04
(Tied) Role of induction therapy in lung transplantation: Search for evidence: 2.04
15. (Tied) Short term support for failing lung patients: 2.00
(Tied) Peri-operative care of the LT recipient: 2.00
17. The role of mTor-inhibitors in lung transplantation: 1.97

TCC COP (Heart) 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 99 results).

1. Use of ex-vivo donor organ systems and donation after circulatory death (DCD) in thoracic transplantation: 68
2. Novel immunosuppressants: Applicability to heart transplantation: 60
3. Significance, identification and treatment of post-cardiac transplant AMR and circulating antibodies (includes HLA, non-HLA, non-specific and donor-specific antibodies): 59
4. Approach to the sensitized patient awaiting heart transplantation: 56
5. Short term support for severe heart failure patients (use of ECMO and percutaneous temporary assist devices): 54
6. Understanding donor heart primary graft dysfunction: 53
7. Update on immune monitoring of the heart transplant recipient: 52
8. Pulmonary hypertension – Management approach prior to heart transplantation: 49
9. Microbiome of the heart transplant recipient and impact on outcome: 48
10. US heart allocation issues – Current and future areas for discussion: 47
11. (Tied) Donor heart selection and management – standard and extended criteria donors: 46
(Tied) Role of induction therapy in heart transplantation: Search for evidence: 46
13. The role of mTor-inhibitors in heart transplantation: 44
14. Approach to mechanical support in end-stage heart disease: 43

TCC COP (Lung) 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 99 results).

1. Lung transplant: challenging recipient selection issues: 53
2. (Tied) Approach to the sensitized patient awaiting lung transplantation: 52
(Tied) Use of ex-vivo donor organ systems and donation after circulatory death (DCD) in lung transplantation: 52
4. (Tied) Novel immunosuppressants: Applicability to lung transplantation: 51
(Tied) Lung Support Devices: ECMO and beyond: 51
6. (Tied) Understanding lung transplant primary graft dysfunction: 50
(Tied) Significance, identification and treatment of post-lung transplant AMR and circulating antibodies (includes HLA, non-HLA, non-specific and donor-specific: 50
8. US lung allocation issues – Current and future areas for discussion: 49
9. Donor lung selection and management – standard and extended criteria donors: 48
10. (Tied) Microbiome of the lung transplant recipient and impact on outcome: 47
(Tied) Approach to mechanical support in end-stage lung disease: 47
12. (Tied) Short term support for failing lung patients: 44
(Tied) Pulmonary hypertension – Management approach prior to lung transplantation: 44
(Tied) Role of induction therapy in lung transplantation: Search for evidence: 44
(Tied) Update on immune monitoring of the lung transplant recipient: 44
16. Peri-operative care of the LT recipient: 42
17. The role of mTor-inhibitors in lung transplantation: 41

TCC COP (Heart) Specialty Topics – “Not interested” Only: The following topics received the highest number of “Not interested” results (out of 99 results).

- Microbiome of the heart transplant recipient and impact on outcome: 42
- US heart allocation issues – Current and future areas for discussion: 39
- Pulmonary hypertension – Management approach prior to heart transplantation: 38
- Donor heart selection and management – standard and extended criteria donors: 37
- Approach to mechanical support in end-stage heart disease: 36

TCC COP (Lung) Specialty Topics – “Not interested” Only: The following topics received the highest number of “Not interested” results (out of 99 results).

- The role of mTor-inhibitors in lung transplantation: 44
- Short term support for failing lung patients: 44
- Peri-operative care of the LT recipient: 42
- Microbiome of the lung transplant recipient and impact on outcome: 41
- Pulmonary hypertension – Management approach prior to lung transplantation: 40
- Role of induction therapy in lung transplantation: Search for evidence: 40

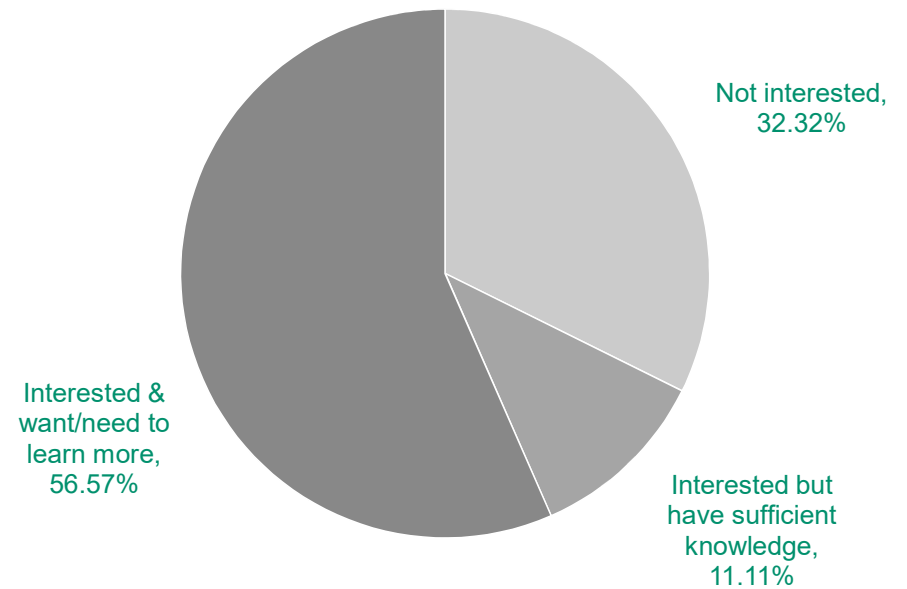
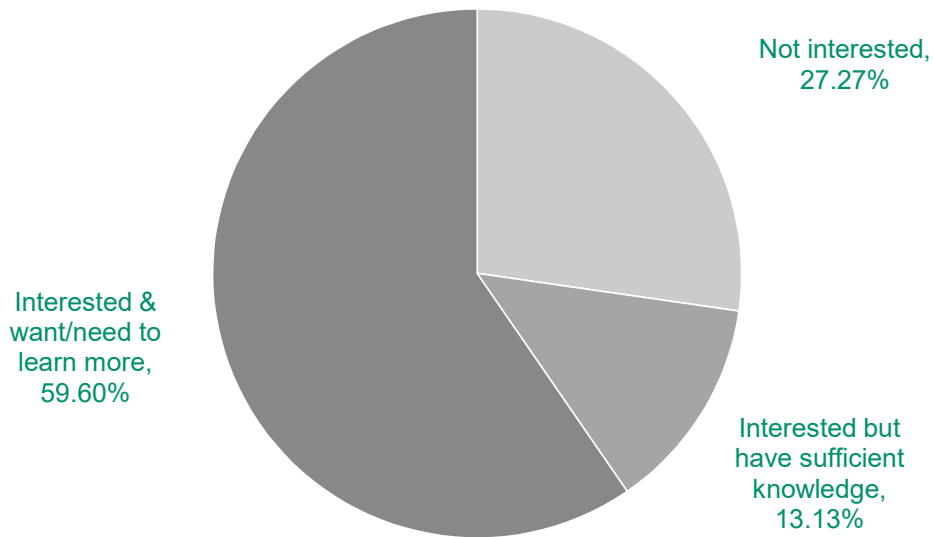
Please see the pie charts on the following pages for a topic-by-topic breakdown of participant interest in each topic.

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.

2020 Education Needs Assessment: Heart Topics

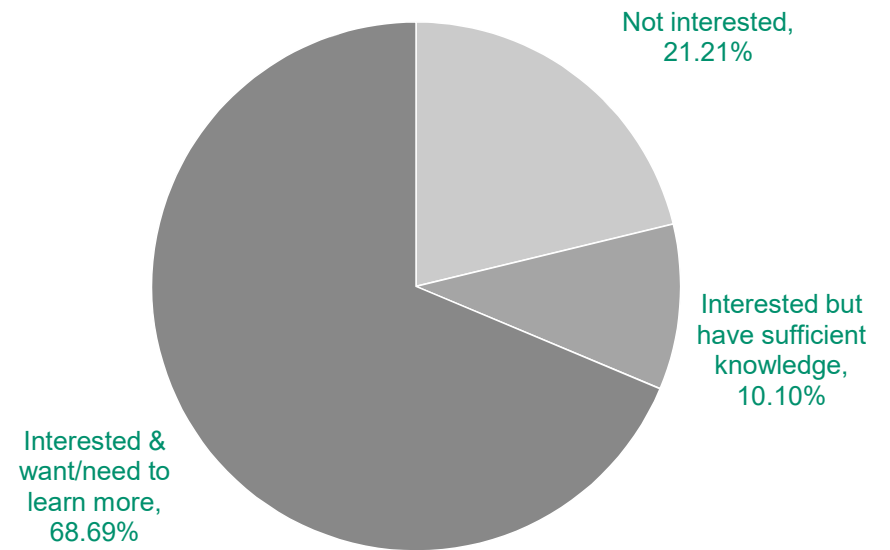
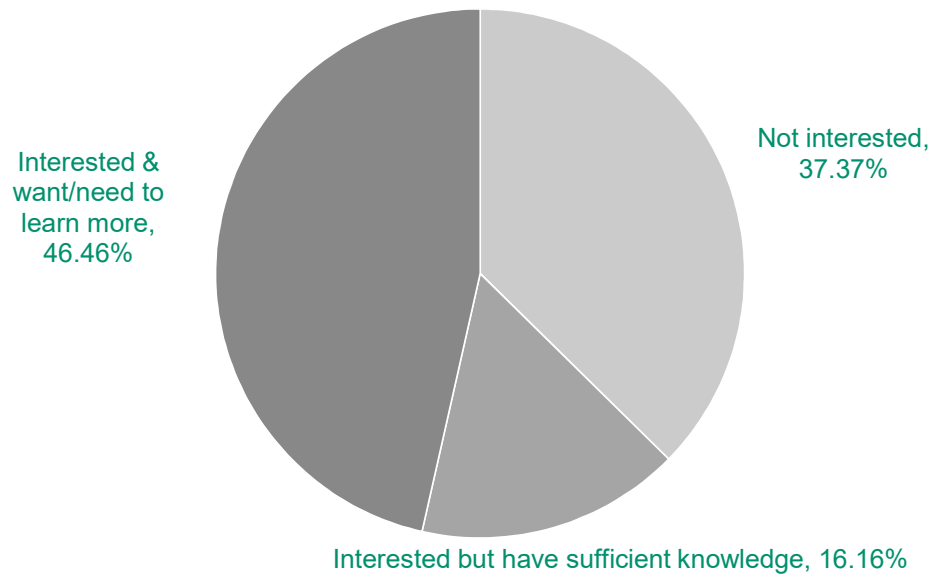
Significance, identification and treatment of post-cardiac transplant AMR and circulating antibodies (includes HLA, non-HLA, non-specific and donor-specific)

Approach to the sensitized patient awaiting heart transplantation



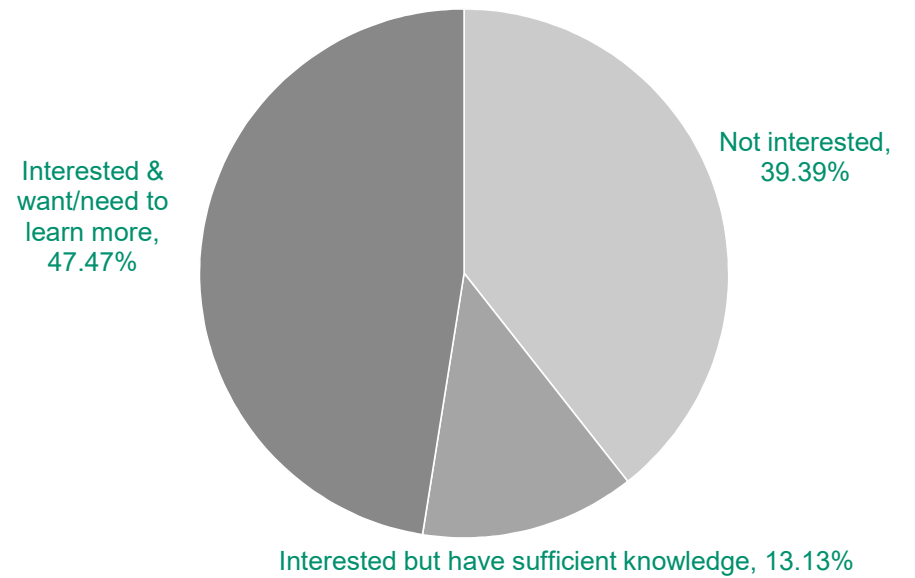
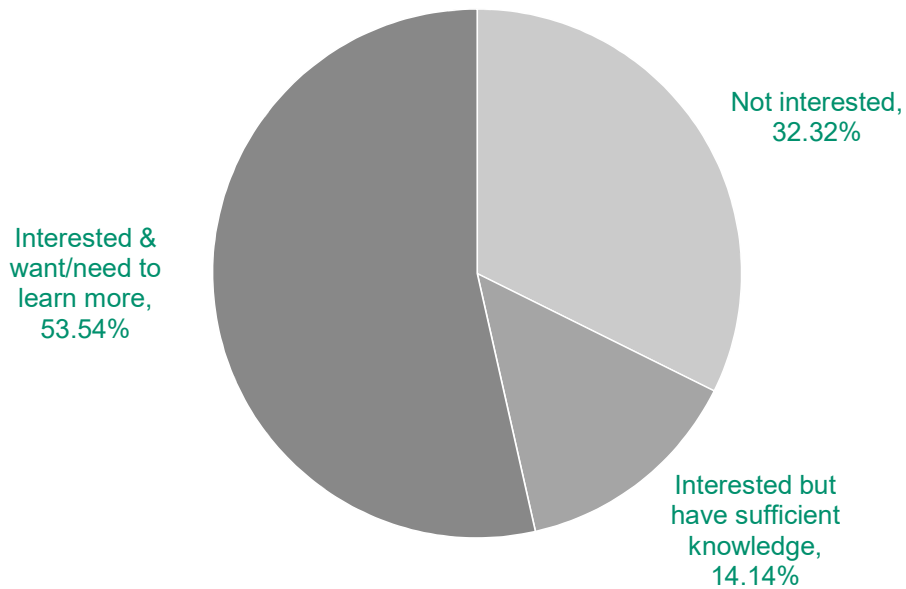
Donor heart selection and management – standard and extended criteria donors

Use of ex-vivo donor organ systems and donation after circulatory death (DCD) in thoracic transplantation



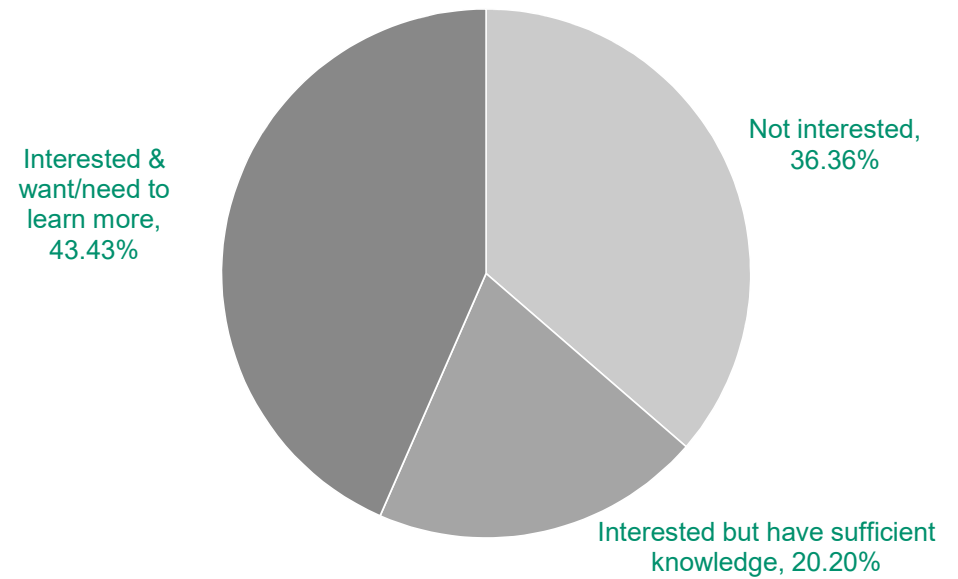
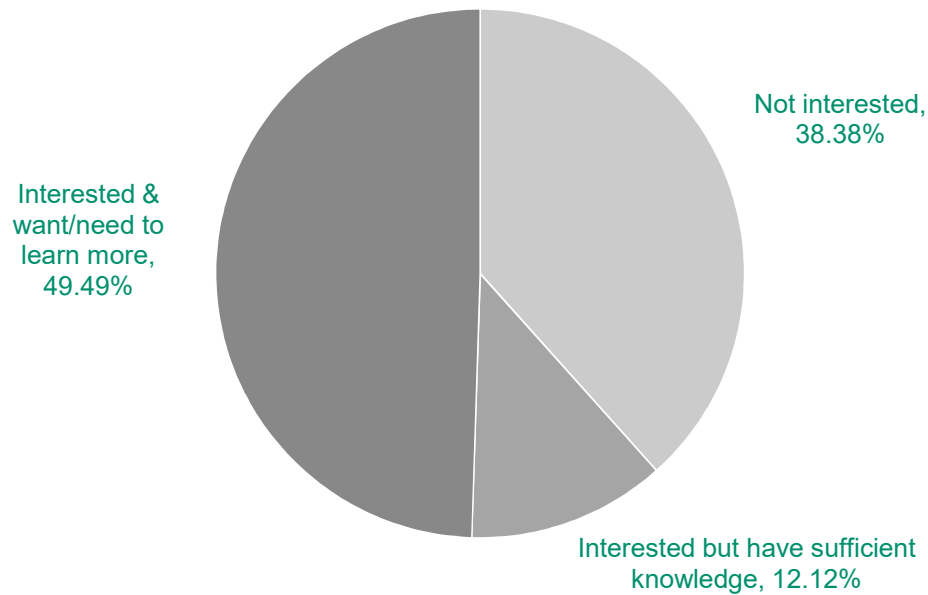
Understanding donor heart primary graft dysfunction

US heart allocation issues – Current and future areas for discussion



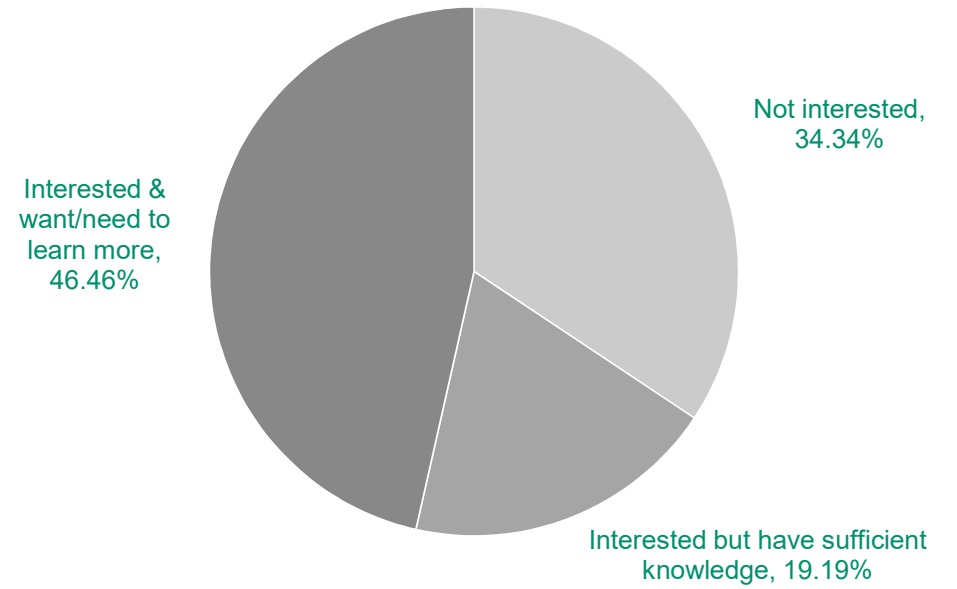
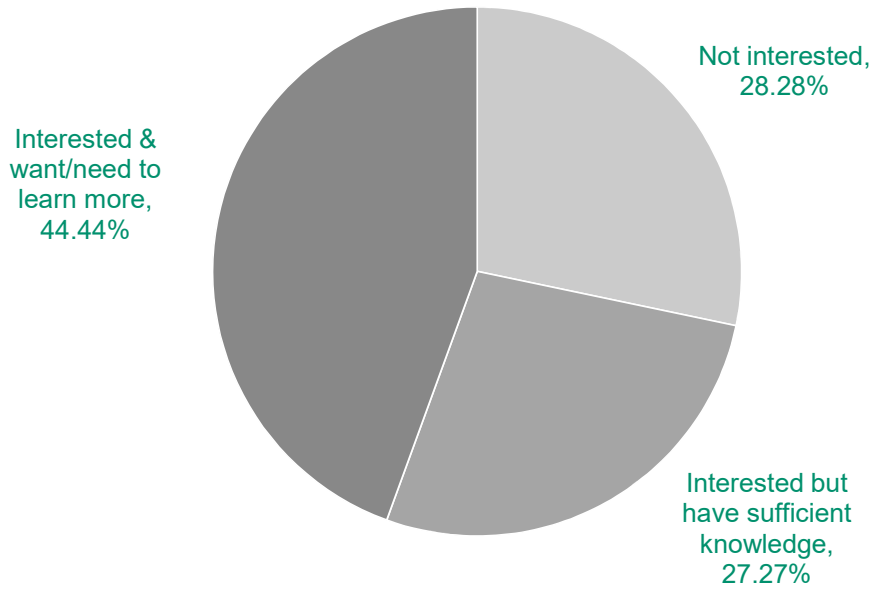
Pulmonary hypertension – Management approach prior to heart transplantation

Approach to mechanical support in end-stage heart disease



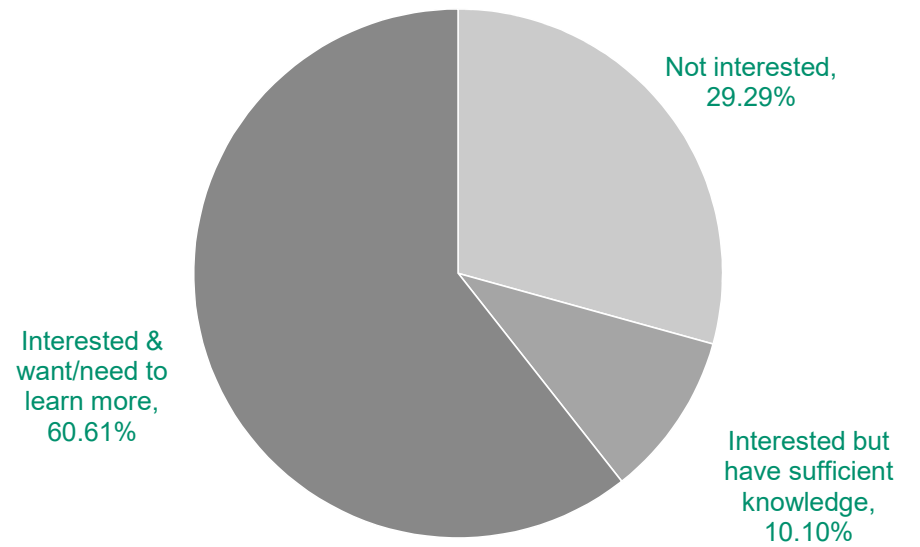
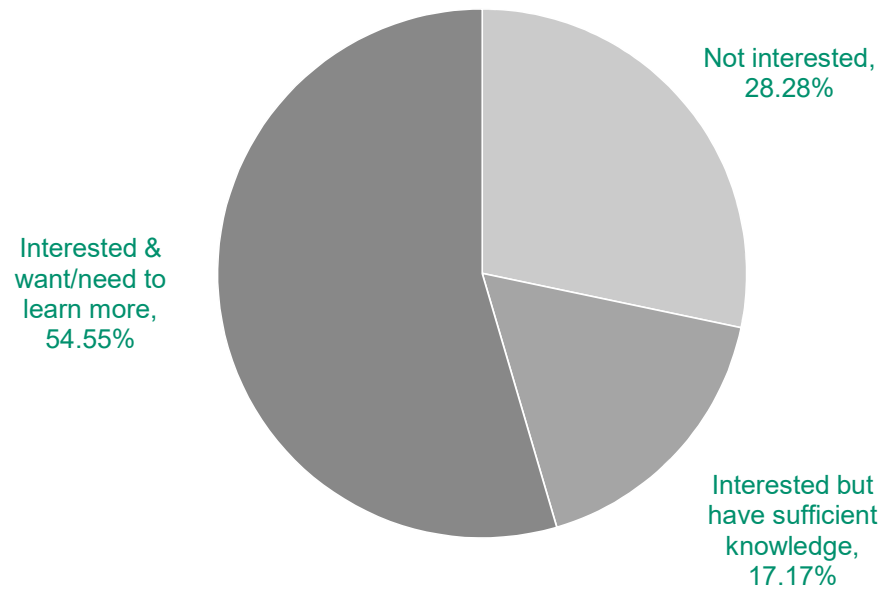
The role of mTor-inhibitors in heart transplantation

*Role of induction therapy in heart transplantation:
Search for evidence*

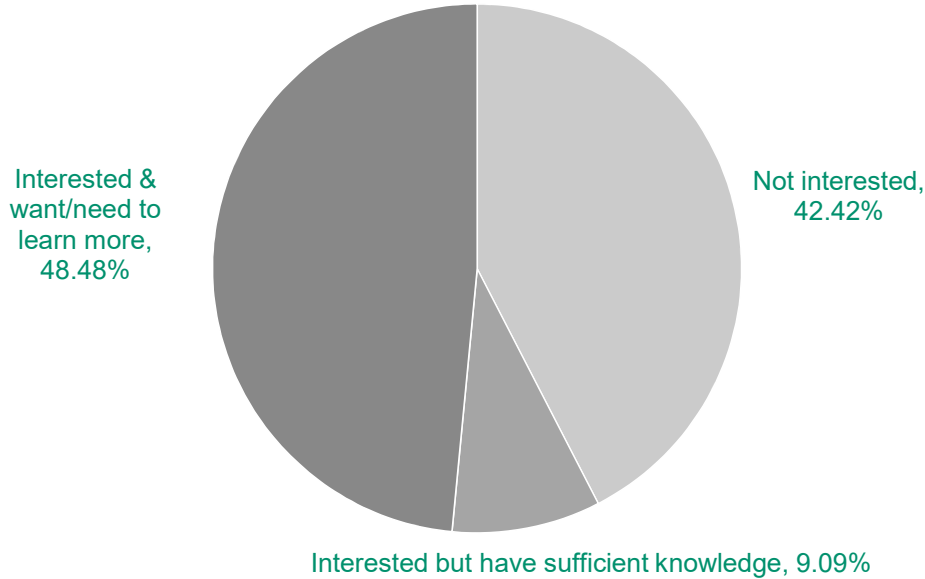


Short term support for severe heart failure patients (use of ECMO and percutaneous temporary assist devices)

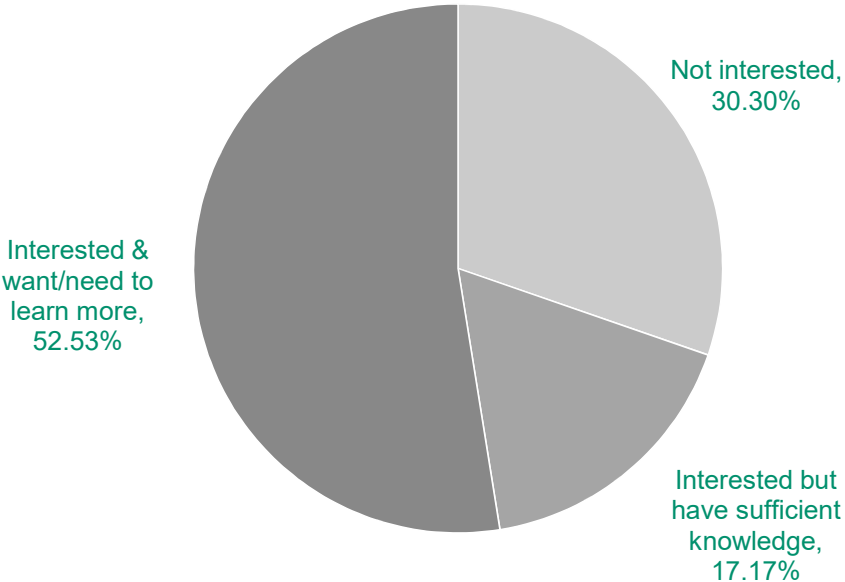
*Novel immunosuppressants:
Applicability to heart transplantation*



Microbiome of the heart transplant recipient and impact on outcome



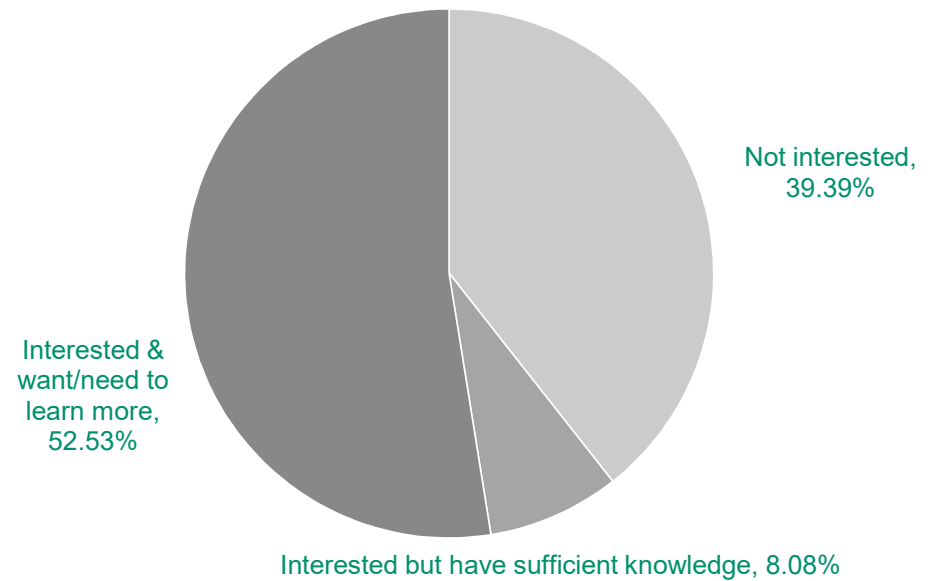
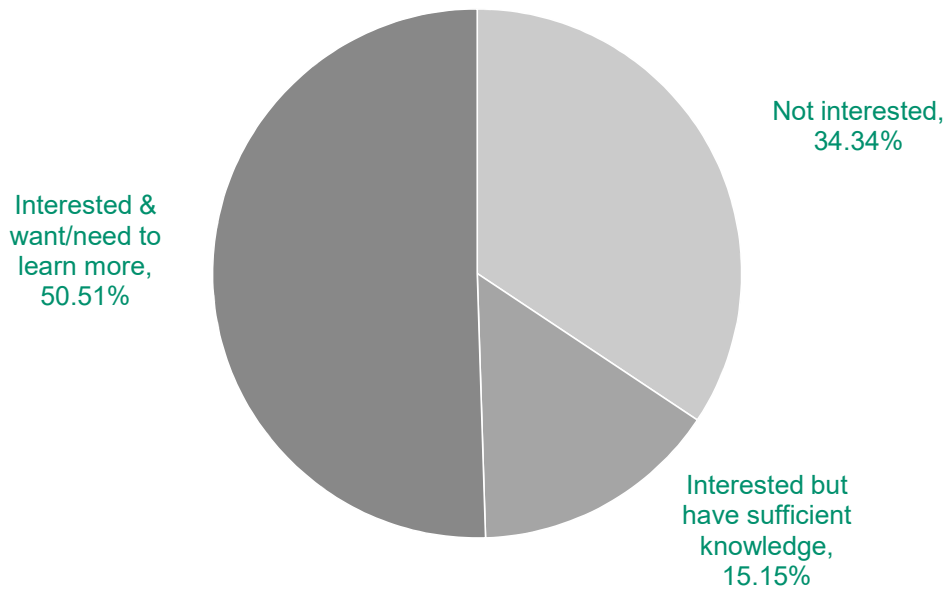
Update on immune monitoring of the heart transplant recipient



2020 Education Needs Assessment: Lung Topics

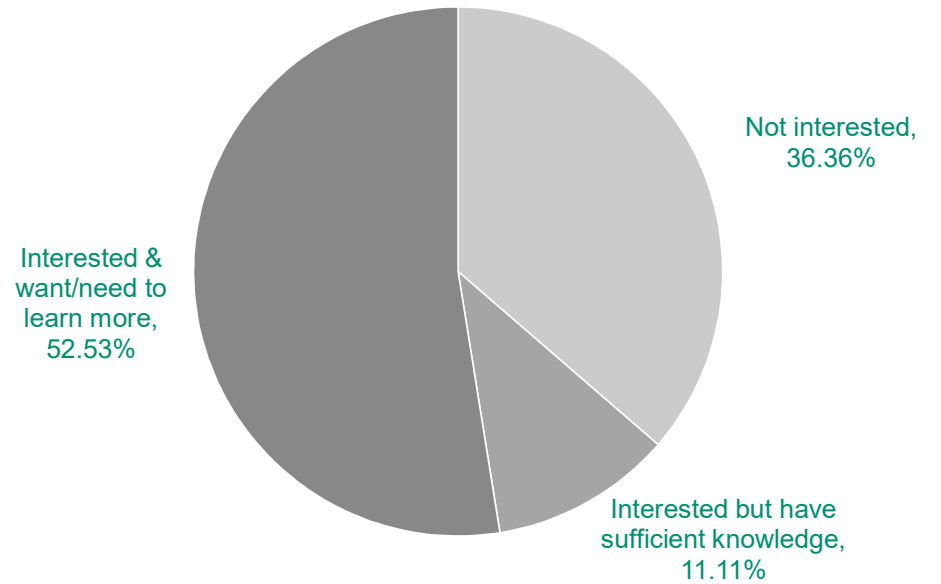
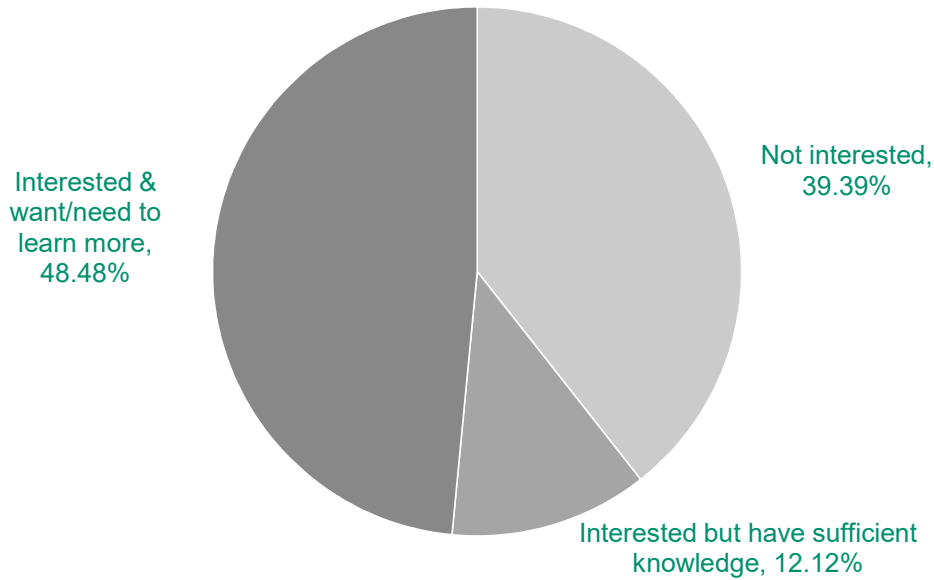
Significance, identification and treatment of post-lung transplant AMR and circulating antibodies (includes HLA, non-HLA, non-specific and donor-specific antibodies)

Approach to the sensitized patient awaiting lung transplantation



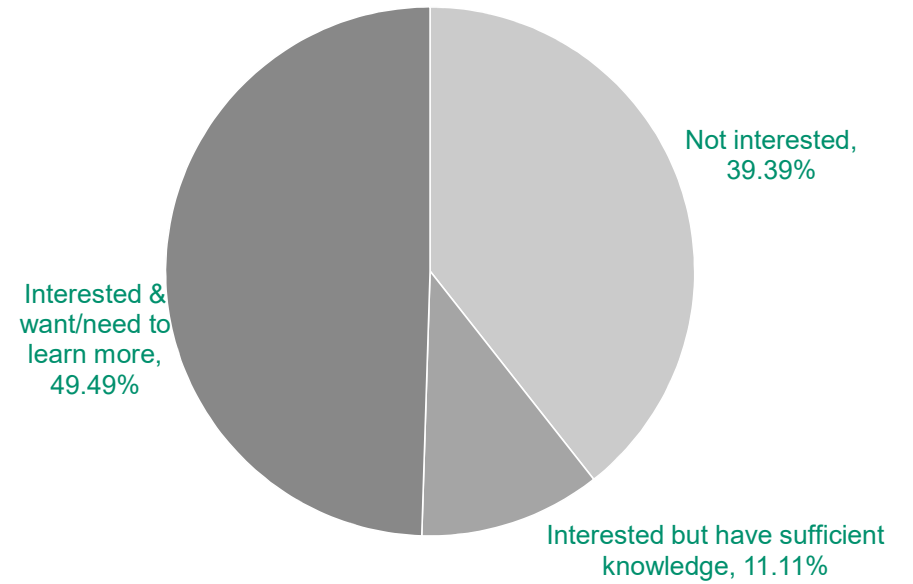
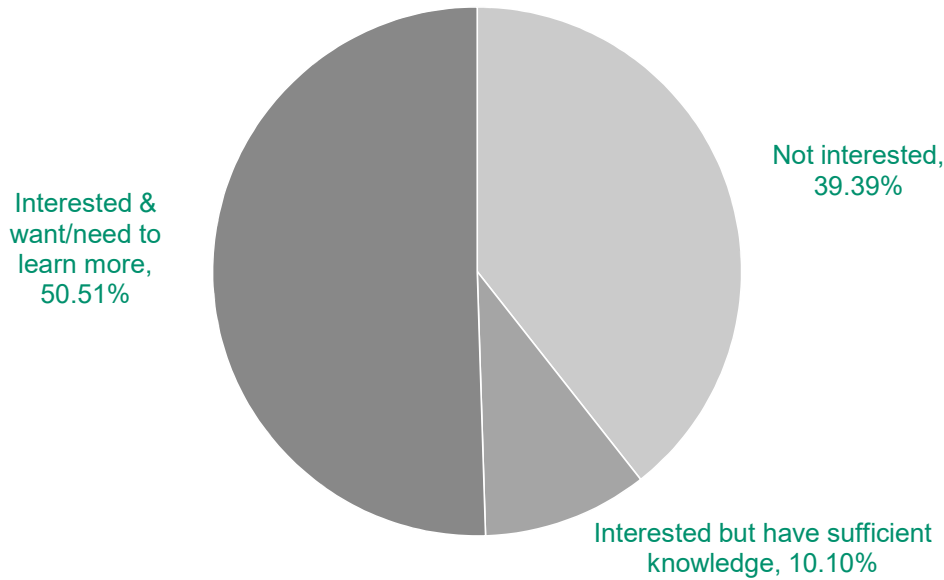
Donor lung selection and management – standard and extended criteria donors

Use of ex-vivo donor organ systems and donation after circulatory death (DCD) in lung transplantation



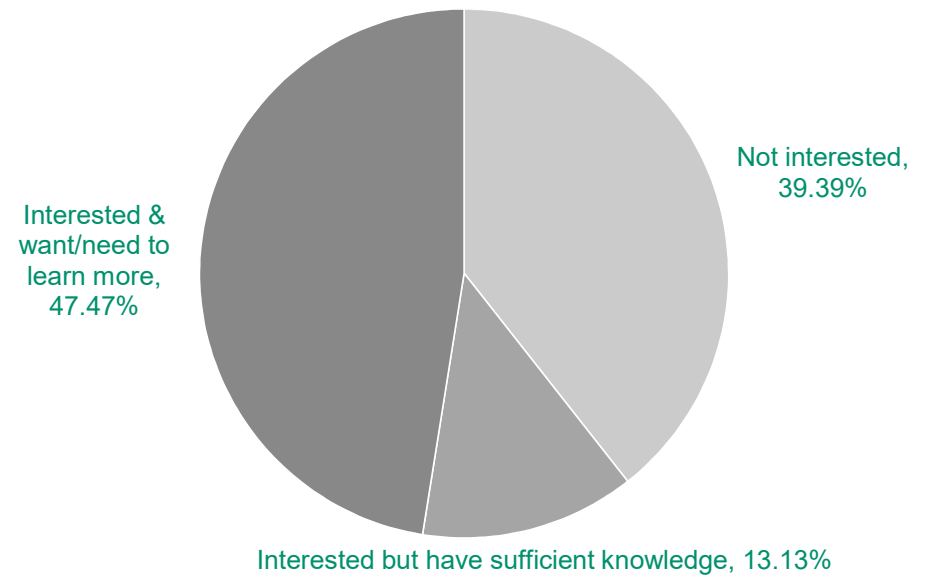
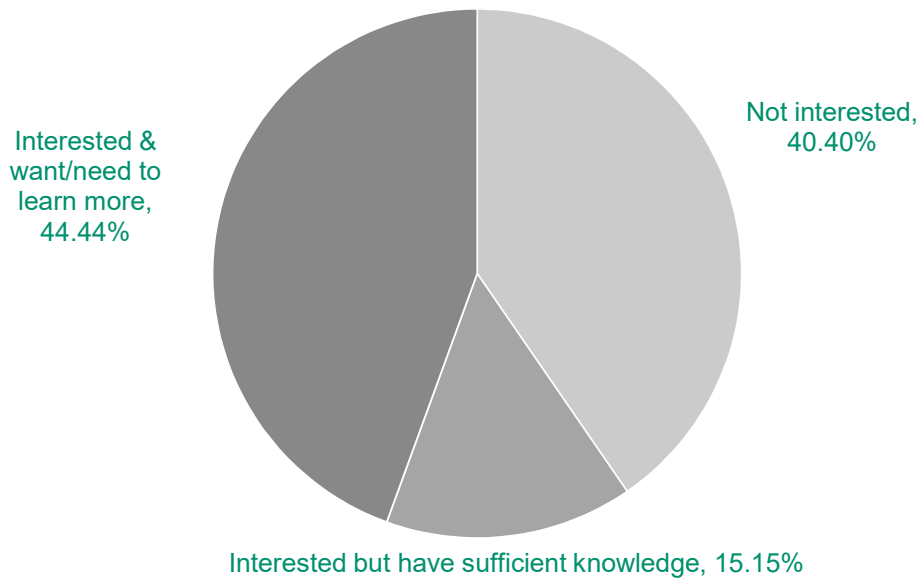
Understanding lung transplant primary graft dysfunction

US lung allocation issues – Current and future areas for discussion



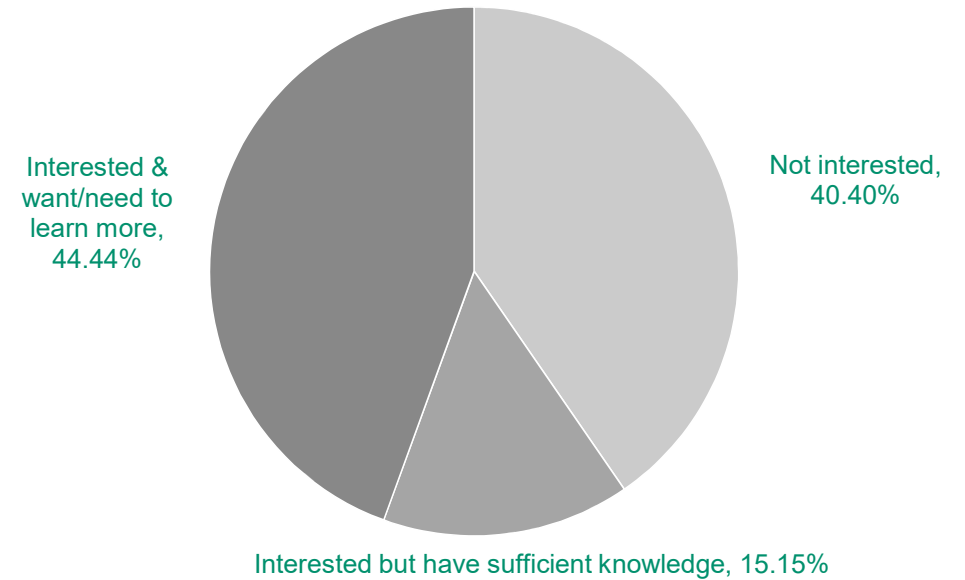
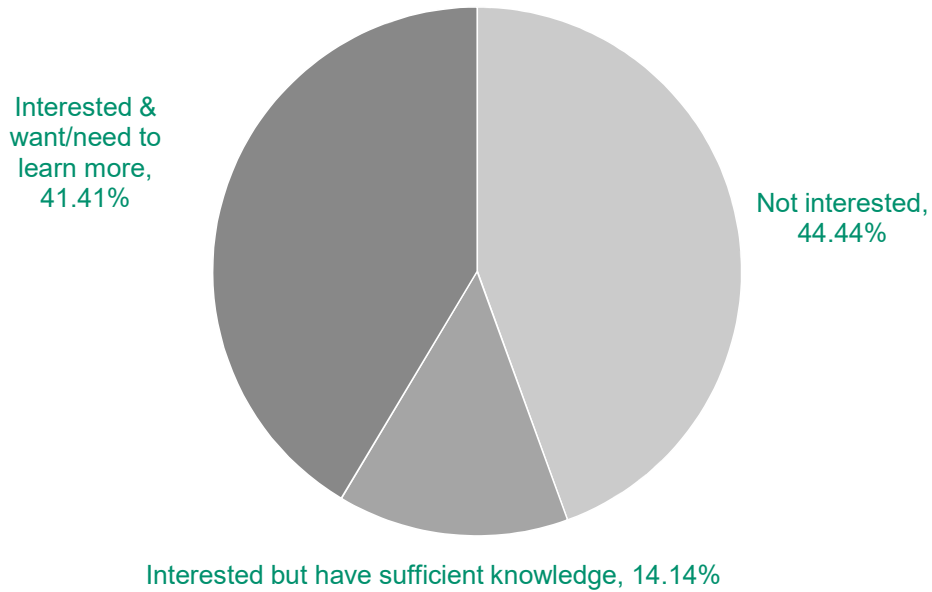
Pulmonary hypertension – Management approach prior to lung transplantation

Approach to mechanical support in end-stage lung disease



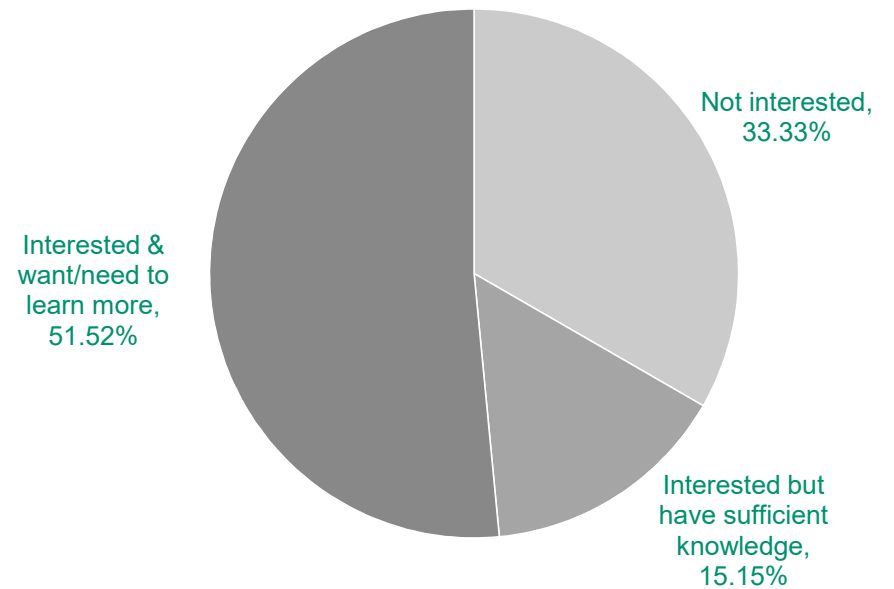
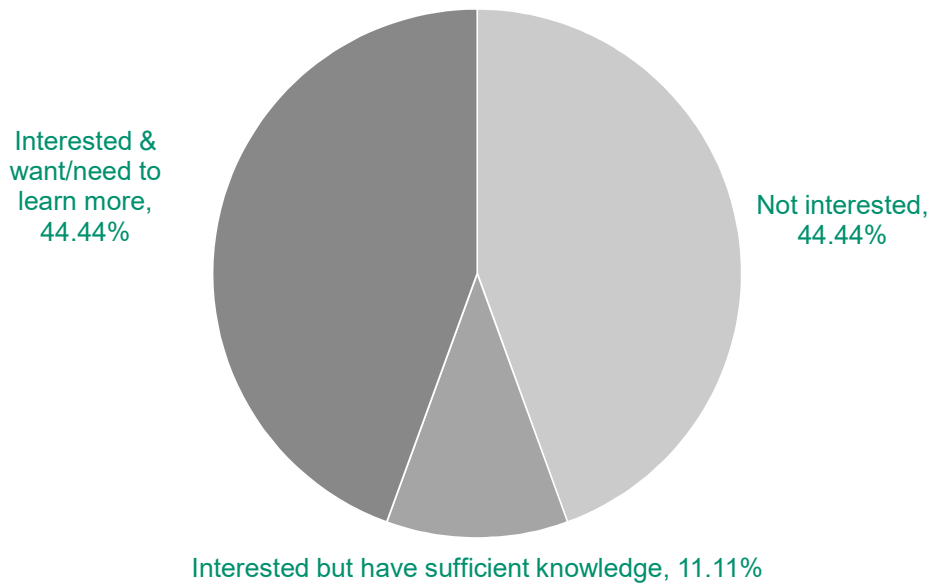
The role of mTor-inhibitors in lung transplantation

*Role of induction therapy in lung transplantation:
Search for evidence*



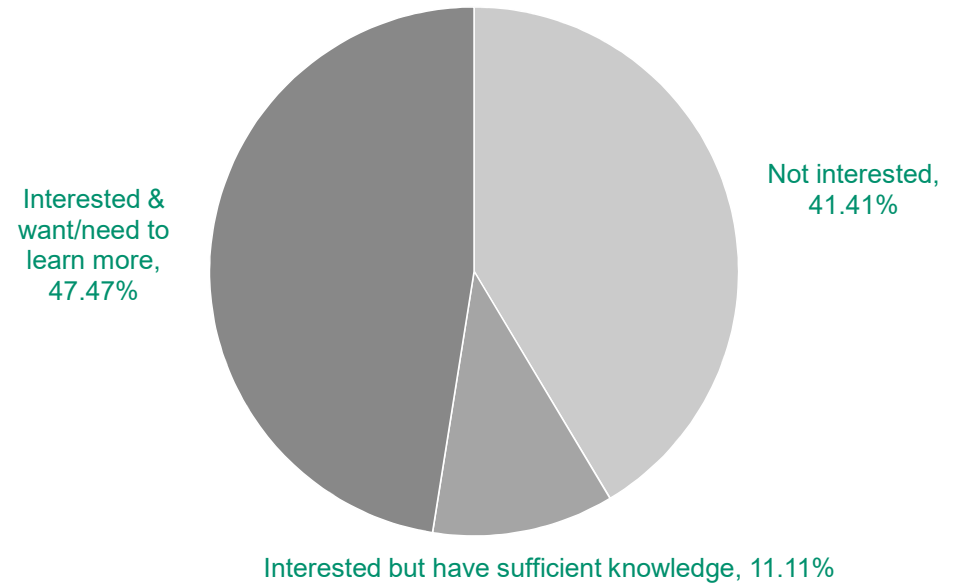
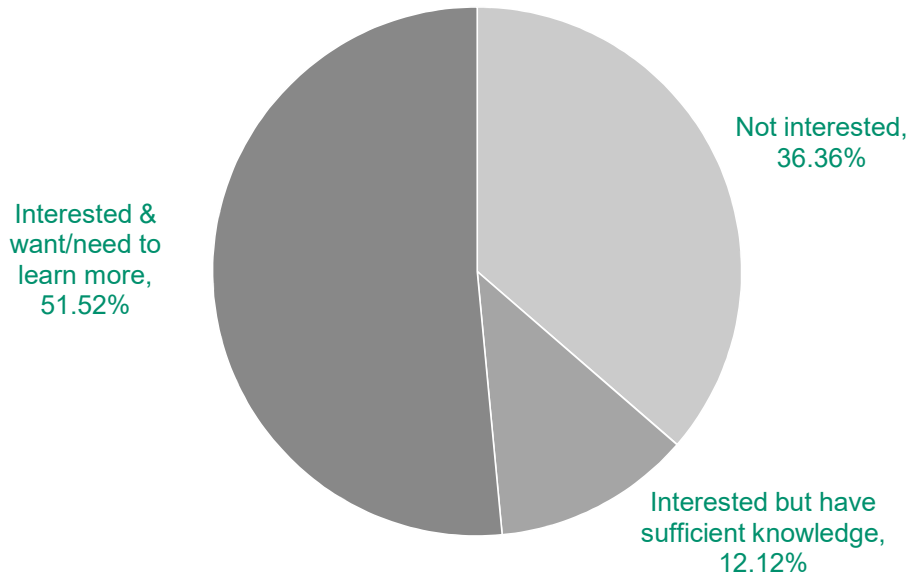
Short term support for failing lung patients

Lung Support Devices: ECMO and beyond



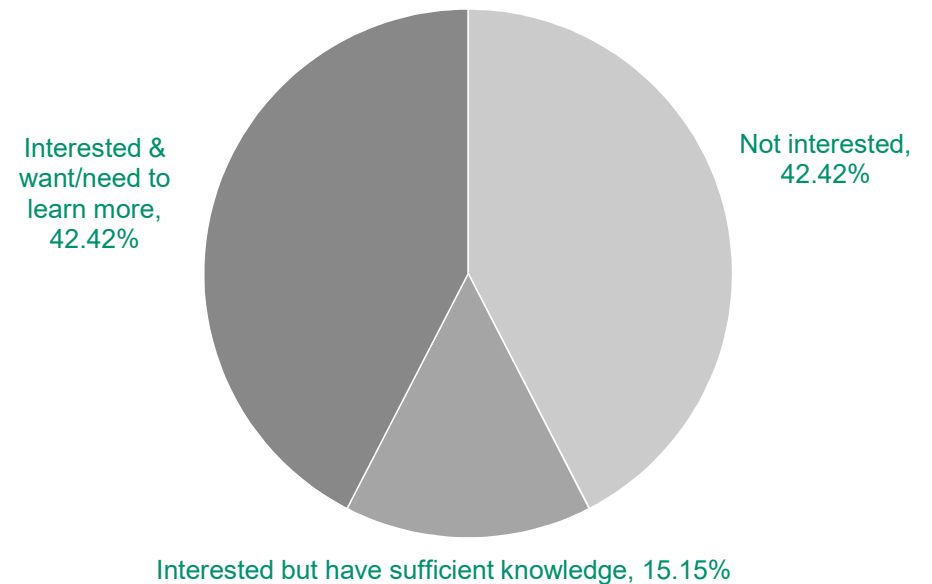
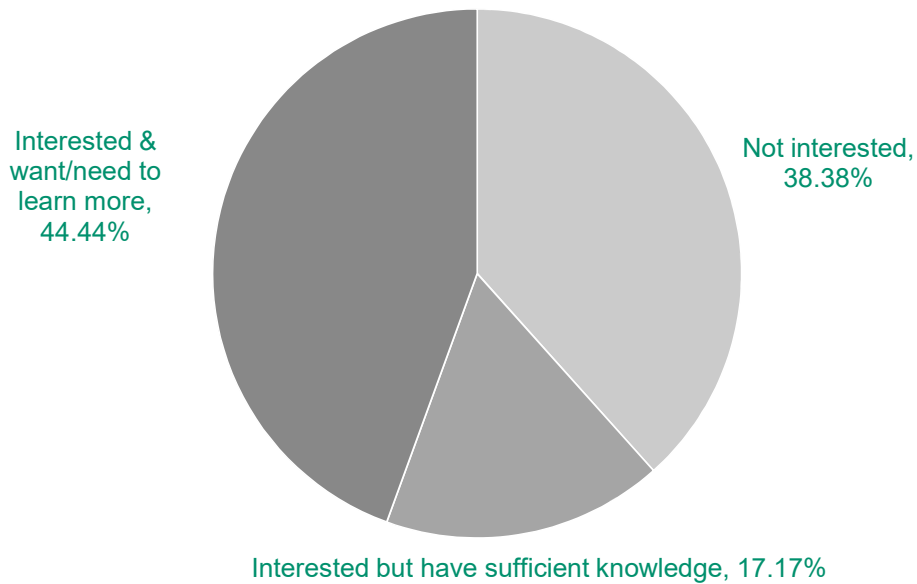
*Novel immunosuppressants:
Applicability to lung transplantation*

*Microbiome of the lung transplant recipient and
impact on outcome*



Update on immune monitoring of the lung transplant recipient

Peri-operative care of the LT recipient



Lung transplant: challenging recipient selection issues

