**Cardiac Pathology Curriculum - Needs Assessment**

**FELLOWS SURVEY**

Q1 Please indicate your role in your cardiology program

* Fellowship Program Director
* Associate Fellowship Program Director
* Fellow

Q2 Please provide the name of your institution\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q3 What is your gender?

* Male
* Female

Q4 What is your age?

* 25-29
* 30-34
* 35-39
* 40-44
* 45-50

Q5 How would you classify your race/ethnicity?

* American Indian or Alaska Native
* Asian
* Black or African American
* Hispanic, Latino, Spanish
* Native Hawaiian or Other Pacific Islander
* White or Caucasian
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q6 What is your current year in fellowship?

* 1
* 2
* 3
* 4
* > 4

Q7 What is the total number of categorical fellows (i.e., 1st – 3rd year fellows) in your fellowship program?

* 1-5
* 6-10
* 11-15
* 16-20
* 21-25
* >25

Q8 Which of the following best describes how cardiac morphology has been incorporated into your fellowship curriculum?

* Stand-alone cardiac morphology lecture series occurring at regular intervals throughout fellowship
* Dedicated cardiac morphology lectures as a part of a general fellowship lecture series
* Cardiac morphology topics incorporated into other topic-based lectures
* Small group sessions
* Other (please describe)

Q9 Does your institution have a cardiac pathology specimen collection?

* Yes
* No (Skip to Q11)

Q10 Is the cardiac pathology specimen collection used to teach cardiology fellows?

* Yes
* No (Skip to Q11)

Q11 How frequently is the cardiac pathology specimen review used for teaching fellows at your program?

* Once a month or more
* More than once a year but fewer than 12 times
* Fewer than once a year

Q12 How frequently does your program invite faculty from outside your institution to teach cardiology fellows about cardiac morphology?

* More than once a year
* About once a year
* Once every few years
* Never

Q13 On average, how frequently does a cardiology fellow travel outside your institution to supplement their education in cardiac morphology?

* More than once a year
* About once a year
* Once every few years
* Never

Q14 Which of the following best describes the person/people who do the majority of teaching in cardiac morphology at your program?

* A combination of cardiologists with pathologists and/or surgeons
* A single cardiologist
* Multiple cardiologists
* Surgeon(s)
* Pathologist(s)
* Other (please describe) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q15 Which nomenclature system is primarily used/taught at your institution?

* Andersonian
* Van Praagh
* A mix of both
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q16  What do you most commonly call the type of VSD seen with “typical” Tetralogy of Fallot with pulmonary stenosis?

Q17 How would you rate the significance of the following potential barriers to learning cardiac morphology as a fellow?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Not a barrier at all | Only slightly significant | Moderately significant | Very significant barrier |
| Fellow time constraints |  |  |  |  |
| Faculty time constraints |  |  |  |  |
| Lack of faculty interest |  |  |  |  |
| Lack of faculty expertise |  |  |  |  |
| Lack of available reference material on cardiac morphology |  |  |  |  |

What, if any, other barriers do you see as being "very significant" to learning cardiac morphology as a fellow?

Q18 In your experience, how often have you witnessed inadequate cardiac morphology knowledge contribute to the following?

|  |  |  |  |
| --- | --- | --- | --- |
|  | Never | Occasionally | Frequently |
| Miscommunication between cardiologist and surgeon |  |  |  |
| Inaccurate diagnosis secondary to lack of anatomic understanding |  |  |  |
| Missed identification of a commonly associated lesion in setting of identified congenital heart disease |  |  |  |
| Inaccurate description of identified heart lesion |  |  |  |

What, if any, other observed negative clinical outcomes would you attribute to inadequate cardiac morphology knowledge?

Q19 Please rate the impact of your institution's curriculum on your ability to perform each of the following skills:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | No impact at all | Only slightly positive | Moderately positive | Very positive impact |
| Describe complex congenital heart lesions. |  |  |  |  |
| Apply the principles of segmental anatomy |  |  |  |  |
| Communicate complex anatomy to surgeons/colleagues |  |  |  |  |
| Describe embryologic origins of cardiac structures |  |  |  |  |
| Identify associated cardiac lesions in various forms of congenital heart disease |  |  |  |  |

Q20 For each of the following methods for learning cardiac morphology please rate your general perception regarding its effectiveness AND the likelihood that you would take advantage of it if it were made available to you.

|  |  |  |
| --- | --- | --- |
|  | Perceived effectiveness | Likelihood you would take advantage of it |
| On-line, self-directed learning series for fellows including lectures and imaging tools | * Not at all effective
 | * Not at all likely
 |
| * Only slightly effective
 | * Only slightly likely
 |
| * Moderately effective
 | * Moderately likely
 |
| * Very effective
 | * Very likely
 |
| Nationally available, on-line resource providing lectures for faculty to teach fellows at your institution. On-line content available to fellows to support lecture series | Drop down menu as above | Drop down menu as above |
| On-line reference atlas of morphology images, independent of lecture series | Drop down menu as above | Drop down menu as above |
| Yearly national meeting focused on cardiac morphology | Drop down menu as above | Drop down menu as above |

What, if any, other modalities would be effective AND used by you with regards to learning cardiac morphology?

Q21 What, if anything, is particularly effective about your program’s current cardiac morphology curriculum?

Q22 What, if anything, would you change to improve your program's current cardiac morphology curriculum?

**END**

**FELLOWSHIP DIRECTORS SURVEY**

Q1 Please indicate your role in your cardiology program

* Fellowship Program Director
* Associate Fellowship Program Director
* Fellow

Q2 Please provide the name of your institution\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q3 What is your gender

* Male
* Female

Q4 What is your age?

* 35-39
* 40-44
* 45-50
* 50-55
* 55-60
* >60

Q5 How would you classify your race/ethnicity

* American Indian or Alaska Native
* Asian
* Black or African American
* Hispanic, Latino, Spanish
* Native Hawaiian or Other Pacific Islander
* White or Caucasian
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q6 Total number of categorical fellows (1st – 3rd year fellows) in your fellowship program

* 1-5
* 6-10
* 11-15
* 16-20
* 21-25
* >25

Q7 How many years have you been in your current fellowship role?

* 0-5
* 6-10
* 11-15
* 16-20
* 21-25
* >25

Q8 How many cardiology faculty are affiliated with your program?

* 1-5
* 6-10
* 11-15
* 16-20
* 21-30
* 31-40
* 41-50
* >50

Q9 Which of the following best describes how cardiac morphology has been incorporated into your fellowship curriculum?

* Stand-alone cardiac morphology lecture series occurring at regular intervals throughout fellowship
* Dedicated cardiac morphology lectures as a part of a general fellowship lecture series
* Cardiac morphology topics incorporated into other topic-based lectures
* Small group sessions
* Other (please describe)

Q10 Does your institution have a cardiac pathology specimen collection?

* Yes
* No (Skip to Q12)

Q11 Is the cardiac pathology specimen collection used to teach cardiology fellows?

* Yes
* No (Skip to Q12)

Q12 How frequently do you use the cardiac pathology specimen review for teaching at your program?

* Once a month or more
* More than once a year but fewer than 12 times
* Fewer than once a year

Q13 How frequently does your program invite faculty from outside your institution to teach cardiology fellows about cardiac morphology?

* More than once a year
* About once a year
* Once every few years
* Never

Q14 On average, how frequently does a cardiology fellow travel outside your institution to supplement their education in cardiac morphology?

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* About once a year
* Once every few years
* Never

Q15 Which of the following best describes the person/people who do the majority of teaching in cardiac morphology at your program?

* A combination of cardiologists with pathologists and/or surgeons
* A single cardiologist
* Multiple cardiologists
* Surgeon(s)
* Pathologist(s)
* Other (please describe) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q16 Which nomenclature system is primarily used/taught at your institution?

* Andersonian
* Van Praagh
* A mix of both
* Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q17  What do you most commonly call the type of VSD seen with “typical” Tetralogy of Fallot with pulmonary stenosis?

Q18 How would you rate the significance of the following potential barriers to teaching cardiac morphology to fellows at your institution?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Not a barrier at all | Only slightly significant | Moderately significant | Very significant barrier |
| Fellow time constraints |  |  |  |  |
| Faculty time constraints |  |  |  |  |
| Lack of faculty interest |  |  |  |  |
| Lack of faculty expertise |  |  |  |  |
| Lack of learning materials for cardiac morphology |  |  |  |  |

What, if any, other barriers do you see as being "very significant" to teaching cardiac morphology to fellows at your institution?

Q19 In your experience, how often have you witnessed inadequate cardiac morphology knowledge contribute to the following?

|  |  |  |  |
| --- | --- | --- | --- |
|  | Never | Occasionally | Frequently |
| Miscommunication between cardiologist and surgeon |  |  |  |
| Inaccurate diagnosis secondary to lack of anatomic understanding |  |  |  |
| Missed identification of a commonly associated lesion in setting of identified congenital heart disease |  |  |  |
| Inaccurate description of identified heart lesion |  |  |  |

What, if any, other observed negative clinical outcomes would you attribute to inadequate cardiac morphology knowledge?

Q20  Consider all of the recent fellowship graduates (i.e., a year or less post-fellowship) you have worked with over the past five years. Roughly what percentage of them have had adequate ability on each of the following skills?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 0-30% | 30% to 60% | 60% to 90% | more than 90% |
| Describe complex congenital heart lesions |  |  |  |  |
| Apply the principles of segmental anatomy |  |  |  |  |
| Communicate complex anatomy to surgeons/colleagues |  |  |  |  |
| Describe embryologic origins of cardiac structures |  |  |  |  |
| Identify associated cardiac lesions in various forms of congenital heart disease |  |  |  |  |

Q21 The same skills you considered in the previous question are listed again below.

Please identify the 2 skills on which recent fellowship graduates tend to need the MOST improvement.

* Describe complex congenital heart lesions
* Apply the principles of segmental anatomy
* Communicate complex anatomy to surgeons/colleagues
* Describe embryologic origins of cardiac structures
* Identify associated cardiac lesions in various forms of congenital heart disease

On what, if any, other cardiac morphology skills are recent fellowship graduates in MAJOR need of improvement?

Q22 For each of the following methods for learning cardiac morphology please rate your general perception regarding its effectiveness AND the likelihood that your program would adopt it if it were made available to you.

|  |  |  |
| --- | --- | --- |
|  | Perceived effectiveness | Likelihood you would take advantage of it |
| On-line, self-directed learning series for fellows including lectures and imaging tools | * Not at all effective
 | * Not at all likely
 |
| * Only slightly effective
 | * Only slightly likely
 |
| * Moderately effective
 | * Moderately likely
 |
| * Very effective
 | * Very likely
 |
| Nationally available, on-line resource providing lectures for faculty to teach fellows at your institution. On-line content available to fellows to support lecture series | Drop down menu as above | Drop down menu as above |
| On-line reference atlas of morphology images, independent of lecture series | Drop down menu as above | Drop down menu as above |
| Yearly national meeting focused on cardiac morphology | Drop down menu as above | Drop down menu as above |

What, if any, other modalities would be effective AND likely adopted by your institution in teaching cardiac morphology?

Q23 What, if anything, is particularly effective about your program’s current cardiac morphology curriculum?

Q24 What, if anything, would you change to improve your program's current cardiac morphology curriculum?