ACGME Congenital Residency Update

Carl L. Backer
Chair, Congenital Program Directors
Thoracic Surgery Directors Association

January 23, 2016
Phoenix, AZ
Total Congenital ACGME Programs Per Year

- 2007: 2
- 2008: 6
- 2009: 9
- 2010: 10
- 2011: 11
- 2012: 11
- 2013: 12
- 2014: 12
- 2015: 12
- 2016: 12
Congenital Cardiac Programs in U.S.
Current ACGME Congenital Cardiac Programs

Carl Backer, MD (Chair)  
Lurie Children’s Hospital

David Campbell, MD  
Children’s Hospital Colorado

Charles Fraser, MD  
Texas Children’s Hospital

Cynthia Herrington, MD  
Children’s Hospital of Los Angeles

Brian Kogon, MD  
Children’s Healthcare of Atlanta

Richard Mainwaring, MD  
Lucile Packard Children’s Hospital

Francis Fynn-Thompson, MD  
Children’s Hospital Boston

Richard Ohye, MD  
CS Mott Children’s Hospital

Lester Permut, MD  
Seattle Children’s Hospital

Brian Reemtsen, MD  
University of California Los Angeles

Stephanie Fuller, MD  
Children’s Hospital of Philadelphia

Michael Mitchell, MD  
Children’s Hospital Wisconsin
Congenital Programs with a Resident

10/12 programs

- Programs
- Residents
Resident Participation in Congenital Match

2013: 6 Programs Matched
Programmatic Updates

2010 – Curriculum Outline – Paper Handout
2012 - Curriculum Online – Weekly
2014 - Curriculum Online – Weekly (Draft #2)
2015 – Curriculum Transition to Moodle to Astute
June 13, 2015 – First In Service Exam
October 2015 – CHSS-Best Congenital Resident Paper
March 12, 2016 – Next In-service Exam
The training of congenital heart surgeons

Brian E. Kogon, MD

Objective: The training of congenital heart surgeons is extremely complex and challenging. It is frequently viewed as a 12-month fellowship followed by an apprenticeship. This study evaluates the initial experience of fellows training in pediatric heart surgery.

Methods: Fellows completing 12 months of training within the past 5 years were included. Questionnaires were completed by e-mail, mail, or telephone correspondence.

Results: Twenty-eight of 42 (67%) fellows responded from 11 training programs. Each fellow assisted in a mean of 294 (± 90) operations, 234 (± 86) of which were open, and each fellow performed a mean of 75 (± 53) operations, 51 (± 42) of which were open. Operations were grouped by risk-adjusted congenital heart surgery scores. Fellows were exposed to all groups as the assistant. As the surgeon, fellows typically performed operations only in groups 1, 2, and 3. Only 7 of 28 fellows performed operations in group 4, none in group 5, and 1 of 28 in group 6. On a scale of 1 to 10 (10 being satisfied), 28 of 28 fellows were satisfied with the exposure to congenital heart surgery (mean 9.5 ± 1.0), but only 10 of 28 with the operative experience (mean 4.9 ± 2.8). Twenty-six of 28 were satisfied with the training overall (mean 7.3 ± 1.8).

Conclusions: Challenges in the training of congenital heart surgeons remain. Although fellows received excellent exposure to surgery for congenital heart disease, there is a perceived minimal operative experience as the surgeon, particularly for the more complex operations. There is dissatisfaction with the operative experience, yet the majority of fellows finish satisfied with their overall training.

J Thorac Cardiovasc Surg 2006;132:1280-1284
2014 Resident Survey (Brian Kogon)

• 31/42 residents responded (74%)

• Median number total cases – 124
  Range 75 – 236

• Median # Complex Neonates - 6
  Range 2 – 8

• 84% practicing Congenital Cardiac Surgery

44 Residents completed ACGME Residency

40 Eligible for Subspecialty Certificate

23 Passed Written Exam

22 Passed Oral Exam
Survey Conclusions
ACGME Congenital Residency

1. Application process standardized via the Match
2. Curriculum standardized
3. Case volume doubled (75 → 136)
4. Residents now perform complex neonatal cases (0.5 → 6)
Oral Exam
Number of Exam Participants per year

Pass Rate is ≈ 80%