A³CR² Chief Resident Survey

Mallinckrodt Institute of Radiology
St. Louis, MO
St. Louis: AKA The Lou, Mound City, Gateway to the West
Purpose

- Information Gathering From Training Programs
  - Demographics and composition of programs
  - Chief resident opinions regarding training process
  - Ideas for change
Survey Format

- Confidential online survey (Survey Monkey)
- Primarily multiple choice, with options for open response where appropriate
- Single response per institution
Survey Limitations

- Sampling bias
  - Only chief residents polled
  - Response rate

- Multiple responses from single institution

- Opinion-based questions
Survey Topics

Repeat Questions:
- Basic Program Details
- Resident Benefits
- Chief Resident Duties
- ACGME Guidelines
- Call
- Board Preparation

New Questions Regarding:
- Board Exam Review
- Resident Education
- ACGME Requirement Changes
2008 Chief Resident Survey

- 187 Surveys Requests
  - 100 responses received
  - 42% of respondents were incoming chiefs
    - Compared with 65% in 2007
  - 81% from university affiliated programs
  - 53% response rate (49% when excluding duplicate responses)
    - 74% in 2007
    - 28% in 2005
    - 55% 2004

- Thank you!
Results...
Total Annual Number of Diagnostic Studies Performed

- 0.0%
- 5.0%
- 10.0%
- 15.0%
- 20.0%
- 25.0%
- 30.0%
- 35.0%
- 40.0%
- 45.0%

- <100,000
- 100K-250K
- 250K-500K
- 500K-750K
- >750,000

2008
2007
2005
2007-08 Residents

- Total # of Residents:
  - R1: 6.3 (1-19)
  - R2: 6.3 (1-18)
  - R3: 6.0 (1-17)
  - R4: 6.1 (1-18)
  - Compared to 2007 (6.8 average for R1-R4) and 2005 (5.8 average for R1-R4)

- 28% Female
  - Compared to 27% in 2007 and 34% in 2005
2007-08 Fellows

- 27% Female
- Compared with 39% in 2006-07

![Bar chart showing the number of fellows for 2005, 2007, and 2008, categorized by the number of fellows ranging from 0 to >30. The chart indicates the percentage of fellows in each category for each year.]
2007-08 Staff

- Female: 27%
- Compared with 26% in 2006-07
Resident Benefits

- **R1 average: $45,800 (30-70K)**
- **R4 average: $51,700 (38-85K)**
- **Tax-Deferred Retirement Savings Plan:**
  - Available to 69% of residents
  - Only 32% receive matching funds (26% in 2007)
94% of replying programs send residents to AFIP

With one exception, 90-100% of residents from these programs attend AFIP

Medicare no longer funds non-clinical resident activities → 12% of respondents feel that this will affect their program’s ability to send residents to AFIP
Costs Assumed by Training Program

- Temp. Med. License: 50%
  - 41% in 2007

- Perm. Med. License: 17%
  - Also 17% in 2007

- Book/Travel Fund: 76%
  - Average: $1070
  - 81% in 2007

- Lead Aprons: 31%
  - 48% in 2007

- Leaded glasses: 9%
- BLS: 78%
- ACLS: 71%

- AFIP Tuition: 93%
- AFIP Housing Stipend: 78%

- Oral Board Review Course Tuition: 37%
- Oral Board Review Course Stipend: 15%
- 90% provide paid maternity leave (80% in 2007)
  - Avg. Length: 6 wks (range 0-10 wks)
- 71% provide paid paternity leave (68% in 2007)
  - Avg. Length: 8 days (range 0-4 wks)
Chief Residency

- 1-4 chiefs per program
- Term spans mid-third to mid-fourth year for 65% of respondents
- Average Salary Bonus: $1,350 (was $2,000 in 2007)
- Range of Bonuses from $0-10,000
- “There are no benefits”
ACGME Compliance

- 100% report complete compliance
  - 100% report positive effect on resident quality of life
  - 90% report positive effect on resident education
- Average hours off between shifts:
  - <10: 1%  10-12: 24%  12-15: 58%  >15: 18%
  - <10: 11% in 2005
- Average work week:
  - 53% Report between 51-60 hours
  - Averages on busiest rotation:
    - 61-70 hours: 33%  71-80 hours: 26%  >80 hours: 6%
    - 80-hour work week is an average over 4 weeks
ACGME Compliance

- Required work hours log: 71% (67% in 2007)

- Average call frequency per week:
  - <1: 32%  1: 48%  2: 17%  4%: 3
  - 2005 Comparison:
    - <1: 53%  1-3: 47%

- Average days off per month:
  - <4: 12%  5: 22%  6: 38%  ≥7: 28%
  - 2005 Comparison:
    - 4-5: 27%  6-8: 64%
Life After Residency

- 95% plan to pursue fellowship training (91% in 2007)
- 4% will enter military service (7% in 2007)

### Fellowship Plans of Respondents

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest</td>
<td>0.00%</td>
</tr>
<tr>
<td>Neuroradiology</td>
<td>5.00%</td>
</tr>
<tr>
<td>Neurointerventional</td>
<td>10.00%</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>15.00%</td>
</tr>
<tr>
<td>Vascular/Interventional</td>
<td>20.00%</td>
</tr>
<tr>
<td>Body MRI</td>
<td>25.00%</td>
</tr>
<tr>
<td>Breast Imaging</td>
<td>30.00%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>1.00%</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>0.00%</td>
</tr>
<tr>
<td>Other</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Private Practice: 67%

Primary Reason for Entering Private Practice

- Other
- Favorable Call Schedule
- Vacation/Benefits
- Monetary Compensation
- Read Multiple Subspecialties
- Location

2007
2008
Academic Practice: 41%

- 6% of programs offer monetary incentive program for entering academic practice
Call

- **Average # of residents in-house on call: 1.4**
  - Range: 0-5

- **In-house call shifts (excluding NF):**
  - <50: 45%  51-75: 24%  >75: 31%
  - 2005 Comparison: 58 (average)

- **Home/beeper call shifts (excluding NF):**
  - 0: 37%  1-40: 32%  41-75: 22%  >75: 10%
  - 2005 Comparison: 78 (average)
Call

- 68% of programs use night float system
  - 73% in 2007
  - 67% in 2005
  - 61% in 2004

- Weeks on night float during residency:
  - 0-4 wks: 12%  4-8 wks: 24%
  - 8-10 wks: 22%  >10 wks: 42%

- Length of night float shifts (hours):
  - <8: 4%  8-10: 9%  10-12: 33%
  - 12-14: 53%  >14: 2%

- Frequency of night float shifts:
  - QD: 81% (63% in 2007)  QOD: 0%  Other: 17%
In-house moonlighting: 37%

Examples:

- MR/CT contrast Injection Monitoring: $50-60/hr
- Overflow ER/Inpatient Studies: $75/hr
- Weekend Neuro and IR assist: $150-300/day
- Read studies from remote location: $25/case

On-call meal vouchers or other free food: 81%
Oral Boards

- 70% of programs provide their own oral board review and curriculum (79% in 2007)

- Structured review begins:
  - Jan-Feb: 60%
  - March-April: 33%
  - Before Jan: 6%

- Oral board review:
  - Lectures given by faculty: 92%
  - Lectures organized by faculty: 29%

- 75% of programs include a mock exam as part of preparation
Hours of Oral Board Review at Home Institution

- 0.0%
- 5.0%
- 10.0%
- 15.0%
- 20.0%
- 25.0%
- 30.0%
- 35.0%
- 0 1-10 10-25 26-50 51-75 >75

Protected Time for Oral Board Preparation

- Reduced hours on daily clinical service
- Occasional early dismissal from clinical service
- No protected time
- Days off

Board Exam Preparation
Commercial Prep Courses for Oral Board Examination

- At least some residents from 93% of respondents’ programs attend commercial course to prepare for oral board exam
- On average, 85% of residents from these programs attend at least one course (range 15-100%)
- Dedicated time off to attend course: 78%
- Stipend offered by program for course tuition: 67%
- Stipend offered by program for living expenses: 20%
ACGME Program Requirements

- 87% have core didactic lecture curriculum (69% in 2007)
- 84% give lectures as 1-hour block/day
- 34% have alternate way of accessing lecture if unable to attend
Residents must perform a “scholarly activity”: 84%
- 64% in 2007

Current protected academic time for project: 41%
- 25% in 2007

ACGME Program Requirements
86% of programs currently require maintenance of a learning portfolio
- 69% in 2007

80% currently employ 360° evaluations

99% of programs currently require an annual objective examination
- Months of training prior to start of call:
  - <6: 17%  6-9: 49%  9-12: 29%  >12: 6%

- 63% of residents stop taking call midway through fourth year
  - 8% stop at end of third year
  - 17% continue throughout fourth year
- 100% of attendings not in-house are available by pager
- 93% of resident reviewed studies on-call are currently reviewed within 24 hrs
R1 Call Restrictions:

- 74% of programs have changed call schedule
- 69% of programs will increase amount of call for R2-R4 residents
- 88% of respondents feel that these changes will have a negative impact on training experience
Medical Student Education

- 25% of Programs Have A Dedicated Teaching Resident

ACGME Program Requirements
Discussion: R1 Call Restrictions

- Overwhelmingly negative outlook from respondents
- Effect on training experience
- Burden on R2-R4 residents and existing systems
- Smaller programs
- Starting R1 call in July
- Comments
  - “This forces a total overhaul of our system”
  - “It is a bad idea that will not result in better reads, but will delay the maturation of the new residents”
  - “At our small program we may have to require 24-hour attending coverage”

- ? Supervised call
- ? Opportunities for senior resident moonlighting
Discussion: 24 Hour In-House Attending Coverage

- Many programs have or are planning to move to 24 hour in-house attending coverage

- Patient care vs. training experience
  - Resident independence

- Contemporaneous vs. intermittent read-out
Discussion: AFIP

- Loss of Medicare funding of non-clinical resident activities
  - “Potentially may not allow us to go”
  - “Changes anticipated, but not well-defined at this point”
  - “This will negatively affect our stipend”
Discussion: Academics vs. Private Practice

- 41% of respondents entering academics
  - ? Selection bias

- $$ listed as primary reason for entering private practice
  - Better retirement savings plans for residents and staff
  - Loan repayment programs
  - Monetary incentive programs to encourage academic careers

- Teaching interest listed as primary reason for entering private practice
  - Majority of chiefly duties are administrative
  - Consider more teaching opportunities, involvement in curriculum development, academic days and teaching electives
Special Thanks To:

- Jennifer Demertzis, M.D.
- Laurie May
- AUR and A3CR2