


**Conducting Successful EM
Resident Research:
18 Month Research Plan**

Edward P. Sloan, MD, MPH, FACEP 

2008 UIC Research Course
*UIC EM Residency Program
Chicago, IL
September 25, 2008*


Edward P. Sloan, MD, MPH, FACEP 

Edward P. Sloan, MD, MPH FACEP
Professor
Department of Emergency Medicine
University of Illinois College of Medicine
Chicago, IL


Edward P. Sloan, MD, MPH, FACEP 

**Attending Physician
Emergency Medicine**
University of Illinois Hospital


Chicago, IL

Edward P. Sloan, MD, MPH, FACEP 

***The Research
Requirement:
A Plan for EM
Resident Research***

Edward P. Sloan, MD, MPH, FACEP 

***A Research Plan:
An Overview of the
18 Step Process***

Edward P. Sloan, MD, MPH, FACEP 

Work Completion Timing **An 18 Month Schedule**

- Focus on work when E.D. month
- Know the end work product
- Push forward during res shift
- Plan to work during off hours
- Communicate, update
- Email, page often

Edward P. Sloan, MD, MPH, FACEP 

Work Completion Timing **An 18 Month Schedule**

- Two 6 hour shifts each month +/-
- One research shift, one off-line
- 12 hours/month x 18 months
- Approx 240 hours over three years
- Keep track of hours
- This info promotes success

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule **Month 1: Write the Abstract**

- Talk to us
- Get an article
- Talk to us again
- Get another article
- Copy a well done study
- Write an abstract

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule **Month 2: Literature Search**

- Go to index medicus
- Use reference manager
- Ask us for key words
- Show us the articles
- Find a few more articles
- Select the best 10

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule **Month 3: Bib, Exec Summary**

- Examine methods, pt population
- What were the results, conclusions?
- What is left unanswered?
- How will your study help?
- Write a two paragraph overview
- Write one paragraph to summarize each of the 10 articles

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule **Month 4: 2 Page Summary**

- Why is the study compelling?
- What will it tell us?
- How will you do it?
- What data will be collected?
- What do you expect to find?
- What's the upshot?

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule
Month 4: 2 Page Summary

- Introduction
- Study question
- Methods
- Major data elements, analysis
- Expected conclusions
- Clinical impact

Edward P. Sloan, MD, MPH, FACEP



18 Month Work Schedule
Month 5: Data Collect Tools

- Use access database
- Use formatted data sheets
- Modify what exists
- Use the same variables, codes
- Get input here!!! Danger!!
- Consider your data tables

Edward P. Sloan, MD, MPH, FACEP



18 Month Work Schedule
Month 6: IRB Application

- UIC documents on line
- Other sites have format in place
- Expedited review is likely
- Consider training requirement
- Patient protections paramount
- We can help to promote success

Edward P. Sloan, MD, MPH, FACEP



18 Month Work Schedule
Month 7: Identify Cases

- E.D. logs must be used
- There are no shortcuts
- Pound thru the log to find the cases
- Consider the medical records dept
- Consider other logs (OR, ICU)
- Consider lab, radiology computers

Edward P. Sloan, MD, MPH, FACEP



18 Month Work Schedule
Months 8-9: Chart Review

- Four 6 hour sessions per month
- Most intensive work period
- Talk with us if help is needed
- Key planning with medical records
- Review within days of being pulled
- Consider food, music, rewards

Edward P. Sloan, MD, MPH, FACEP



18 Month Work Schedule
Month 10: Data Entry

- Use a computer at the office
- Caution with a home computer
- Save and copy files
- Put onto the office computer
- Need to run a frequency count
- Need to clean data set

Edward P. Sloan, MD, MPH, FACEP



18 Month Work Schedule

Month 11: Data Analysis

- Work with the faculty
- Let us guide your efforts
- Learn how easy the process is
- Expect both sessions at office
- Expect to use 2 x 2 tables
- Produce summary tables

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule

Month 12: Data Tables

- Standard format for tables
- Demographics, equal groups
- Main interventions, outcomes
- Results of analyses
- Cost information
- Other interesting information

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule

Month 13: Abstract

- Go to the pre-written abstract
- Fill in the numbers
- Use a standard format
- Give enough numbers to inform
- Conclude based on the info
- Suggest public health importance

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule

Month 14: Intro, Methods

- What's the issue?
- Why is your study important?
- What is your study question?
- What did you do?
- How did you do it?
- Address pt protections issues

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule

Month 15: Discussion Data

- Look at the data from the 10 articles: what did others find?
- Compare your data with theirs
- Compare other factors (demographics)
- Explain your results relatively
- Be able to state why your results differed, or didn't

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule

Month 16: Results, Discuss

- Results highly structured
- Explain your main results
- Written results augment tables
- Summarize data differently
- Parallel construction in discussion
- Focus on your study results, impact

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule **Month 17: Presentation**

- Format in place for oral & poster
- 18 power point slides for poster
- 30 power point slides for oral
- Fill in your data, no new work
- Print your poster or presentation

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule **Month 18: Paper Edit, Ref**

- Push to get your paper reviewed
- Make the necessary changes
- Modify the table, text
- Put in the references
- Build the reference list
- It's Miller time!

Edward P. Sloan, MD, MPH, FACEP 

18 Month Work Schedule **Big Picture**

- Allows for incremental work
- Easier to follow
- Easier to catch up
- Provides framework for binder
- Allows for ongoing assessment
- Makes success likely

Edward P. Sloan, MD, MPH, FACEP 

Conclusions

- Master plan
- Discreet steps
- No one step or phase is overwhelming
- Greater likelihood for success
- Can be developed in detail with EM residents or faculty

Edward P. Sloan, MD, MPH, FACEP 

Recommendations

- Keep it simple
- Follow the steps
- Publish successfully
- Have a clinical impact
- Improve patient care

Edward P. Sloan, MD, MPH, FACEP 

Thank you.

www.ferne.org
ferne@ferne.org

edsloan@uic.edu
312 413 7490

ferne_2008_research_lecture_sloan_18month_plan_092508_final
10/14/2008 5:34 PM

Edward P. Sloan, MD, MPH, FACEP 