

2008 UIC Emergency Medicine Residency Research Course
Research Idea Generation
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**Conducting Successful EM
Resident Research:
Research Project
Idea Generation**

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Disclosures

- FERNE Chairman and President
- ACEP Clinical Policy Committee
- ACEP Scientific Review Committee
- No individual financial disclosures

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Overview

Global Objectives

- Figure out what to do
- Find something relevant
- Find something doable
- Make the process enjoyable
- Be realistic
- Get it done!

Overview

Session Objectives

- Identify project types
- Consider strengths of system
- Go thru important clinical areas
- Identify specific projects
- Create a creative environment

Project Idea Generation

Project Types

- Case report
- Case series
- Cohort study
- Case-control study
- Clinical trial, non-randomized
- Randomized clinical trial

Project Idea Generation

System Strengths

- Strong Emergency Departments
- Excellent patient populations
- Strong residency programs
- Good research infra-structure
- Ongoing organized research
- External research opportunities

Project Idea Generation

Important Clinical Areas

- Cardiopulmonary diseases
- Critical care
- Neurological emergencies
- Women and children
- Trauma

Cardiopulmonary

Specific Projects

- Acute myocardial infarction
 - Use of thrombolytics
 - AMI transfer outcome
 - Angioplasty use & outcome
- Acute pulmonary edema
- Pulmonary embolism
- Acute respiratory failure
- Acute asthma exacerbations

Critical Care

Specific Projects

- Intubation, RSI
- CPR/Cardioversion
- IABP
- ABGs, chest tubes, DPL
- Use of anesthetics in the E.D.
- Use of blood in the E.D.

Neurologic Emergencies

Specific Projects

- Seizures, status epilepticus
- Stroke
- CNS infections
- CNS trauma
- Use of CT, MRI

Women and Children

Specific Projects

- Precipitous delivery
- Ectopic pregnancy
- Fever & sepsis
- Abuse & neglect
- Trauma
- Gender & elderly issues

Trauma

Specific Projects

- BHT & LOC
- Cervical spine
- Trauma surgery in non-trauma centers
- Outcome of hemorrhagic shock
- Use of blood, fluids
- Role of EtOH, drugs in trauma

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Ongoing Internal Work

- Seizures, CVA
- AMI
- Heat crisis
- Pain Rx in the E.D.
- Elderly emergencies
- Toxicology

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Ongoing Internal Work

- Chronobiology
- Peds trauma
- Illinois trauma registry
- Sickle cell database
- M & M tracking
- O'Hare (IFME & on-site facility)

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Ongoing Internal Work

- Mass gatherings
- EMS Chicago
- Private EMS
- Curriculum research
- Educational methods
- Ortho/injuries

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Ongoing External Projects

- AMI registry
- Nexus (C-spine)
- Neurological emergencies
- MARC (Asthma)
- Others?

Resident Research Project

Big Picture

- No Nobel prizes
- Few clinical trials
- Good case series
- Good case-control studies
- Opportunity to set benchmarks
- Opportunity to tell a story

Resident Research Project

What You Should Do

- Find a clinically relevant topic
- Find an area that is important
- Find a knowledge gap
- Collect some useful data
- Tell a story
- Publish the work

Conclusions

Resident Research Project

- This is a golden opportunity
- There are ample areas to research
- The infrastructure is in place
- The work will be made easy
- You must step up to the plate
- We will make sure you get a hit

Recommendations

Resident Research Project

- Start thinking early
- Communicate early, often
- Collaborate
- Push the research faculty, staff
- Consider what will be your workload
- Aggressively complete the project

Thank you.

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