

University of North Texas Health Science Center  
Texas College of Osteopathic Medicine

**The Osteopathic Research Center**

**Summer Program in Clinical Research**

**TCOM Class of 2025**

❖ **PROGRAM DIRECTOR**

- John C. Licciardone, DO, MS, MBA, FACPM  
Regents Professor and Richards-Cohen Distinguished Chair in Clinical Research  
Department of Family Medicine  
MET-568

❖ **GOAL**

- To promote competency in understanding the relevant methodological foundations that will facilitate the conduct and critical evaluation of clinical research with an emphasis on patient-centered studies.

❖ **PROGRAM OBJECTIVES**

- To receive a Certificate of Completion, each student must accomplish the following during the Summer Program within the context a group project:
  - Perform a comprehensive literature search pertaining to a research topic
  - Formulate a related research hypothesis that may be tested using data available from the National Ambulatory Medical Care Survey (see Appendix I for sample data)
  - Conduct statistical analyses using the IBM SPSS Statistics Software (in conjunction with the Program Director) to test the research hypothesis
  - Participate in an oral presentation of the research project, including background, methods, results, and discussion
  - Participate in a journal club presentation that critically evaluates a clinical research study.

❖ **DIDACTIC SESSIONS**

- Required didactic sessions will generally be scheduled weekday mornings from June 6 through June 24, 2022. These sessions will be delivered remotely via Zoom. A provisional summary of daily topics for the Summer Program is available (Appendix II). Dr. Licciardone will serve as the primary instructor with other faculty available as needed. The schedule is subject to change based on unexpected contingencies. The Summer Program requires full-time effort throughout the three weeks that it is offered. Thus, students are expected to be reading or working on other program-related activities when not in didactic sessions.

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❖ **READING MATERIALS**

- The required textbook is Hulley SB, et al. *Designing Clinical Research*, 4<sup>th</sup> ed., Lippincott Williams & Wilkins, 2013.
- An optional textbook is Field A. *Discovering Statistics using IBM SPSS Statistics*, 4<sup>th</sup> ed., SAGE Publications, 2013.
- Other readings will be provided in Canvas.

❖ **PRACTICAL RESEARCH EXPERIENCE**

- Students will gain practical research experience in conducting a simple group research project, including biomedical literature searching, data analysis, and oral presentation, under the supervision of the Program Director.

❖ **JOURNAL CLUB**

- Students will gain proficiency in presenting and critically evaluating clinical research studies published in such leading medical journals as the *New England Journal of Medicine* and *JAMA*.

❖ **ATTENDANCE**

- Students must be in attendance during the entire Summer Program to receive a Certificate of Completion. Up to 2 sessions may be missed with prior approval from the Program Director. Additional absences will require a valid excuse for medical or other emergency reasons.

❖ **PROPRIETY INTEREST AND CONFIDENTIALITY**

- Osteopathic Research Center (and PRECISION Pain Research Registry) documents and data are considered intellectual property. Moreover, all related research subject information is considered privileged information and is to remain confidential per Institutional Review Board guidelines.
- The restrictions noted above do not apply to documents and data from the National Ambulatory Medical Care Survey, which is freely available in the public domain.

❖ **CERTIFICATE OF COMPLETION**

- A Certificate of Completion will be awarded by the Program Director to each student who successfully completes all requirements of the Summer Program during 2022.

❖ **SUMMER PROGRAM COST AND SUPPORT**

- The Summer Program is offered at no cost to students. Institutional resources are also provided at no cost, including access to selected readings in Canvas, Health Sciences Library materials, and the IBM SPSS Statistics Software.
- There are no student stipends or fringe benefits available for the Summer Program and students must acquire their own textbooks.

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❖ **SUBSEQUENT CLINICAL RESEARCH TRAINING**

- Students who successfully complete the Summer Program during 2022 will be eligible to apply for the PRECISION Pain Research Registry's Clinical Research Fellowship Program in Fall 2022. A competitive application process will be used to screen and interview students for the fellowship program, including consideration of prior performance in the Summer Program and current standing within the TCOM Class of 2025.
- The objective of the fellowship program will be to complete an assigned group project involving pain research and data collected from participants in the PRECISION Pain Research Registry and/or its affiliated control panel.
- Successful completion of the program and a fellowship certificate will require submission of a group project manuscript suitable for publication in a peer-reviewed biomedical journal during 2023.

## **Appendix I - NAMCS Sample Data**

# SAMPLE

## NATIONAL AMBULATORY MEDICAL CARE SURVEY 2018 PATIENT RECORD

Form Approved: OMB No. 0920-0234; Expiration date 03/31/2019

**NOTICE** – Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a current valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing burden to: CDC/ATSDR Information Collection Review Office, 1600 Clifton Road, MS D-74, Atlanta, GA 30333, ATTN: PRA (0920-0234).

**Assurance of confidentiality** – We take your privacy very seriously. All information that relates to or describes identifiable characteristics of individuals, a practice, or an establishment will be used only for statistical purposes. NCHS staff, contractors, and agents will not disclose or release responses in identifiable form without the consent of the individual or establishment in accordance with section 308(d) of the Public Health Service Act (42USC 242m) and the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA, Title 5 of Public Law 107-347). In accordance with CIPSEA, every NCHS employee, contractor, and agent has taken an oath and is subject to a jail term of up to five years, a fine of up to \$250,000, or both if he or she willfully discloses ANY identifiable information about you. In addition, NCHS complies with the Federal Cybersecurity Enhancement Act of 2015. This law requires the federal government to protect federal computer networks by using computer security programs to identify cybersecurity risks like hacking, internet attacks, and other security weaknesses. If information sent through government networks triggers a cyber threat indicator, the information may be intercepted and reviewed for cyber threats by computer network experts working for, or on behalf of, the government. The Cybersecurity Act of 2015 permits monitoring information systems for the purpose of protecting a network from hacking, denial of service attacks and other security vulnerabilities.<sup>1</sup> The software used for monitoring may scan information that is transiting, stored on, or processed by the system. If the information triggers a cyber threat indicator, the information may be intercepted and reviewed for cyber threats. The Cybersecurity Act specifies that the cyber threat indicator or defensive measure taken to remove the threat may be shared with others only after any information not directly related to a cybersecurity threat has been removed, including removal of personal information of a specific individual or information that identifies a specific individual. Monitoring under the Cybersecurity Act may be done by a system owner or another entity the system owner allows to monitor its network and operate defensive measures on its behalf.

<sup>1</sup>"Monitor" means "to acquire, identify, or scan, or to possess, information that is stored on, processed by, or transiting an information system"; "information system" means "a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination or disposition of information"; "cyber threat indicator" means "information that is necessary to describe or identify security vulnerabilities of an information system, enable the exploitation of a security vulnerability, or unauthorized remote access or use of an information system."

### PATIENT INFORMATION

|  |  |   |  |   |
|--|--|---|--|---|
| <b>Patient medical record No.</b>  | <b>Age</b> <input type="text"/> 1 <input type="checkbox"/> Years<br>2 <input type="checkbox"/> Months<br>3 <input type="checkbox"/> Days   | <b>Ethnicity</b><br>1 <input type="checkbox"/> Hispanic or Latino<br>2 <input type="checkbox"/> Not Hispanic or Latino  | <b>Expected source(s) of payment for THIS VISIT – Mark (X) all that apply.</b><br>1 <input type="checkbox"/> Private insurance<br>2 <input type="checkbox"/> Medicare<br>3 <input type="checkbox"/> Medicaid or CHIP or other state-based program<br>4 <input type="checkbox"/> Workers' compensation<br>5 <input type="checkbox"/> Self-pay<br>6 <input type="checkbox"/> No charge/Charity<br>7 <input type="checkbox"/> Other<br>8 <input type="checkbox"/> Unknown | <b>Tobacco use</b><br>1 <input type="checkbox"/> Not current<br>2 <input type="checkbox"/> Current<br>3 <input type="checkbox"/> Unknown<br><b>Prior tobacco use</b><br>1 <input type="checkbox"/> Never<br>2 <input type="checkbox"/> Former<br>3 <input type="checkbox"/> Unknown |
| <b>Date of visit</b><br>Month <input type="text"/> Day <input type="text"/> Year <input type="text"/><br>201 | <b>Sex</b><br>1 <input type="checkbox"/> Female – Is patient pregnant?<br>1 <input type="checkbox"/> Yes – Specify gestation week – Gestation week refers to the number of weeks plus 2 that the offspring has spent developing in the uterus → <input type="text"/><br>2 <input type="checkbox"/> No<br>2 <input type="checkbox"/> Male | <b>Race – Mark (X) all that apply.</b><br>1 <input type="checkbox"/> White<br>2 <input type="checkbox"/> Black or African American<br>3 <input type="checkbox"/> Asian<br>4 <input type="checkbox"/> Native Hawaiian or Other Pacific Islander<br>5 <input type="checkbox"/> American Indian or Alaska Native |  |   |
| <b>ZIP Code</b> Enter "1" if homeless.<br><input type="text"/>   |  |   |  |   |
| <b>Date of birth</b><br>Month <input type="text"/> Day <input type="text"/> Year <input type="text"/>        |  |   |  |   |

### BIOMETRICS/VITAL SIGNS

|   |   |  |   |
|---|---|--|---|
| Height <input type="text"/> ft <input type="text"/> in<br>OR<br><input type="text"/> cm | Weight <input type="text"/> lb <input type="text"/> oz<br>OR<br><input type="text"/> kg <input type="text"/> gm | Temperature <input type="text"/><br>1 <input type="checkbox"/> °C<br>2 <input type="checkbox"/> °F | Blood pressure – If multiple measurements are taken, record the last measurement.<br>Systolic <input type="text"/> Diastolic <input type="text"/> |
|---|---|--|---|

### REASON FOR VISIT

|   |   |
|---|---|
| <b>List the first 5 reasons for visit (i.e., symptoms, problems, issues, concerns of the patient) in the order in which they appear. Start with the chief complaint and then move to the patient history for additional reasons.</b><br>(1) Most important <input type="text"/><br>(2) Other <input type="text"/><br>(3) Other <input type="text"/><br>(4) Other <input type="text"/><br>(5) Other <input type="text"/> | <b>Major reason for this visit</b><br>1 <input type="checkbox"/> New problem (<3 mos. onset)<br>2 <input type="checkbox"/> Chronic problem, routine<br>3 <input type="checkbox"/> Chronic problem, flare-up<br>4 <input type="checkbox"/> Pre-surgery<br>5 <input type="checkbox"/> Post-surgery<br>6 <input type="checkbox"/> Preventive care (e.g., routine prenatal, well-baby, screening, insurance, general exams) |
|---|---|

### INJURY

|  |  |  |  |
|--|--|--|--|
| <b>Is this visit related to an injury/trauma, overdose/poisoning, or adverse effect of medical/surgical treatment?</b><br>1 <input type="checkbox"/> Yes, injury/trauma<br>2 <input type="checkbox"/> Yes, overdose/poisoning<br>3 <input type="checkbox"/> Yes, adverse effect of medical or surgical treatment or adverse effect of medicinal drug<br>4 <input type="checkbox"/> No<br>5 <input type="checkbox"/> Unknown } SKIP to Continuity of Care | <b>Did the injury/trauma, overdose/poisoning or adverse effect occur within 72 hours prior to the date and time of this visit?</b><br>1 <input type="checkbox"/> Yes<br>2 <input type="checkbox"/> No<br>3 <input type="checkbox"/> Unknown } For adverse effect SKIP to Cause | <b>Is this injury/trauma or overdose/poisoning intentional or unintentional?</b><br>1 <input type="checkbox"/> Intentional<br>2 <input type="checkbox"/> Unintentional (e.g., accidental)<br>3 <input type="checkbox"/> Intent unclear | <b>What was the intent of the injury/trauma or overdose/poisoning?</b><br>1 <input type="checkbox"/> Suicide attempt with intent to die<br>2 <input type="checkbox"/> Intentional self-harm without intent to die<br>3 <input type="checkbox"/> Unclear if suicide attempt or intentional self-harm without intent to die<br>4 <input type="checkbox"/> Intentional harm inflicted by another person (e.g., assault, poisoning)<br>5 <input type="checkbox"/> Intent unclear |
|--|--|--|--|

**Cause of injury/trauma, overdose/poisoning, or adverse effect of medical/surgical treatment** – Describe the place and circumstances that preceded the injury, poisoning, or adverse effect. Examples: 1 – Injury (e.g., patient fell while walking down stairs at home and sprained her ankle; patient was bitten by a spider); 2 – Poisoning (e.g., 4 year old child was given adult cold/cough medication and became lethargic; child swallowed large amount of liquid cleanser and began vomiting); 3 – Adverse effect (e.g., patient developed a rash on his arm 2 days after taking penicillin for an ear infection)

### CONTINUITY OF CARE

### DIAGNOSIS

|  |  |  |
|--|--|--|
| <b>Are you the patient's primary care provider?</b><br>1 <input type="checkbox"/> Yes – SKIP to<br>2 <input type="checkbox"/> No<br>3 <input type="checkbox"/> Unknown }<br><b>Was patient referred for this visit?</b><br>1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Unknown | <b>Has the patient been seen in this practice before?</b><br>1 <input type="checkbox"/> Yes, established patient – How many past visits to this practice in the last 12 months? (Exclude this visit.)<br><input type="text"/> Visits<br>2 <input type="checkbox"/> No, new patient | <b>As specifically as possible, list diagnoses related to this visit including chronic conditions.</b><br>(1) Primary diagnosis <input type="text"/><br>(2) Other <input type="text"/><br>(3) Other <input type="text"/><br>(4) Other <input type="text"/><br>(5) Other <input type="text"/> |
|--|--|--|

|   |  |   |   |
|---|--|---|---|
| <b>Regardless of the diagnoses previously entered, does the patient now have – Mark (X) all that apply.</b>   |  |   | <b>Complete if Asthma box is marked.</b>  |
| 1 <input type="checkbox"/> Alcohol misuse, abuse or dependence  | 10 <input type="checkbox"/> Chronic obstructive pulmonary disease (COPD)   | 20 <input type="checkbox"/> History of pulmonary embolism (PE), deep vein thrombosis (DVT), or venous thromboembolism (VTE) | <b>Asthma severity:</b><br>1 <input type="checkbox"/> Intermittent<br>2 <input type="checkbox"/> Mild persistent<br>3 <input type="checkbox"/> Moderate persistent<br>4 <input type="checkbox"/> Severe persistent<br>5 <input type="checkbox"/> Other – Specify <input type="text"/> |
| 2 <input type="checkbox"/> Alzheimer's disease/Dementia   | 11 <input type="checkbox"/> Congestive heart failure (CHF)   | 21 <input type="checkbox"/> HIV Infection/AIDS  | 6 <input type="checkbox"/> None recorded  |
| 3 <input type="checkbox"/> Arthritis  | 12 <input type="checkbox"/> Coronary artery disease (CAD), ischemic heart disease (IHD) or history of myocardial infarction (MI) | 22 <input type="checkbox"/> Hyperlipidemia  | <b>Asthma control:</b><br>1 <input type="checkbox"/> Well controlled<br>2 <input type="checkbox"/> Not well controlled<br>3 <input type="checkbox"/> Very poorly controlled<br>4 <input type="checkbox"/> Other – Specify <input type="text"/>  |
| 4 <input type="checkbox"/> Asthma   | 13 <input type="checkbox"/> Depression   | 23 <input type="checkbox"/> Hypertension  | 5 <input type="checkbox"/> None recorded  |
| 5 <input type="checkbox"/> Attention deficit disorder (ADD)/Attention deficit hyperactivity disorder (ADHD)   | 14 <input type="checkbox"/> Diabetes mellitus (DM), Type 1   | 24 <input type="checkbox"/> Obesity   |   |
| 6 <input type="checkbox"/> Autism spectrum disorder   | 15 <input type="checkbox"/> Diabetes mellitus (DM), Type 2   | 25 <input type="checkbox"/> Obstructive sleep apnea (OSA)   |   |
| 7 <input type="checkbox"/> Cancer   | 16 <input type="checkbox"/> Diabetes mellitus (DM), Type unspecified   | 26 <input type="checkbox"/> Osteoporosis  |   |
| 8 <input type="checkbox"/> Cerebrovascular disease/History of stroke (CVA) or transient ischemic attack (TIA) | 17 <input type="checkbox"/> End-stage renal disease (ESRD)   | 27 <input type="checkbox"/> Substance abuse or dependence   |   |
| 9 <input type="checkbox"/> Chronic kidney disease (CKD)   | 18 <input type="checkbox"/> Hepatitis B  | 28 <input type="checkbox"/> None of the above   |   |
|   | 19 <input type="checkbox"/> Hepatitis C  |   |   |

**SERVICES**

Mark (X) all Examinations/Screenings, Laboratory tests, Imaging, Procedures, Treatments, Health education/Counseling, and Other services ORDERED OR PROVIDED.

1  NO SERVICES

**Examinations/Screenings:**

- 2  Alcohol misuse screening (includes AUDIT, MAST, CAGE, T-ACE)
- 3  Breast
- 4  Depression screening
- 5  Domestic violence screening
- 6  Foot
- 7  Neurologic
- 8  Pelvic
- 9  Rectal
- 10  Retinal/Eye
- 11  Skin
- 12  Substance abuse screening (includes NIDA/NM ASSIST, CAGE-AID, DAST-10)

**Laboratory tests:**

- 13  Basic metabolic panel (BMP)
- 14  CBC
- 15  Chlamydia test
- 16  Comprehensive metabolic panel (CMP)
- 17  Creatinine/Renal function panel
- 18  Culture, blood
- 19  Culture, throat
- 20  Culture, urine
- 21  Culture, other
- 22  Glucose, serum
- 23  Gonorrhea test
- 24  HbA1c (Glycohemoglobin)
- 25  Hepatitis testing/panel
- 26  HIV test
- 27  HPV DNA test

- 28  Lipid profile/panel
- 29  Liver enzymes/Hepatic function panel
- 30  Pap test
- 31  Pregnancy/HCG test
- 32  PSA (prostate specific antigen)
- 33  Rapid strep test
- 34  TSH/Thyroid panel
- 35  Urinalysis (UA) or urine dipstick
- 36  Vitamin D test

**Imaging:**

- 37  Bone mineral density
- 38  CT scan
- 39  Echocardiogram
- 40  Other ultrasound
- 41  Mammography
- 42  MRI
- 43  X-ray

**Procedures:**

- 44  Audiometry
- 45  Biopsy  
Biopsy provided?  
1  Yes  
2  No
- 46  Cardiac stress test
- 47  Colonoscopy  
Colonoscopy provided?  
1  Yes  
2  No
- 48  Cryosurgery (cryotherapy)/  
Destruction of tissue
- 49  EKG/ECG

- 50  Electroencephalogram (EEG)
- 51  Electromyogram (EMG)
- 52  Excision of tissue  
Excision of tissue provided?  
1  Yes  
2  No
- 53  Fetal monitoring
- 54  Peak flow
- 55  Sigmoidoscopy  
Sigmoidoscopy provided?  
1  Yes  
2  No
- 56  Spirometry
- 57  Tonometry
- 58  Tuberculosis skin testing/PPD
- 59  Upper gastrointestinal  
endoscopy/EGD  
EGD provided?  
1  Yes  
2  No

**Treatments:**

- 60  Cast/splint/wrap
- 61  Complementary and alternative  
medicine (CAM)
- 62  Durable medical equipment
- 63  Home health care
- 64  Mental health counseling,  
excluding psychotherapy
- 65  Occupational therapy
- 66  Physical therapy
- 67  Psychotherapy
- 68  Radiation therapy
- 69  Wound care

**Health education/Counseling:**

- 70  Alcohol abuse counseling
- 71  Asthma education
- 72  Asthma action plan given to patient
- 73  Diabetes education
- 74  Diet/Nutrition
- 75  Exercise
- 76  Family planning/Contraception
- 77  Genetic counseling
- 78  Growth/Development
- 79  Injury prevention
- 80  STD prevention
- 81  Stress management
- 82  Substance abuse counseling
- 83  Tobacco use/Exposure
- 84  Weight reduction

**Other services not listed:**

- 85  Other service – Specify ↗

|                                       |
|---------------------------------------|
|                                       |
|                                       |
| Up to 5 other services can be listed. |
|                                       |
|                                       |

**MEDICATIONS & IMMUNIZATIONS**

**PROVIDERS**

**TIME SPENT WITH PROVIDER**

**Were any prescription or non-prescription drugs ORDERED or PROVIDED (by any route of administration) at this visit?** Include Rx and OTC drugs, immunizations, allergy shots, oxygen, anesthetics, chemotherapy, and dietary supplements that were ordered, supplied, administered, or continued during this visit. Include drugs prescribed at a previous visit if the patient was instructed at THIS VISIT to continue with the medication.

- 1  Yes
- 2  No

List up to 30 medications.

|      |  | New                        | Continued                  |
|------|--|----------------------------|----------------------------|
| (1)  |  | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| (2)  |  | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| (3)  |  | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| (4)  |  | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| (5)  |  | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| ↓    |  | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |
| (30) |  | 1 <input type="checkbox"/> | 2 <input type="checkbox"/> |

Mark (X) all providers seen at this visit.

- 1  Physician
- 2  Physician assistant
- 3  Nurse practitioner/  
Midwife
- 4  RN/LPN
- 5  Mental health  
provider
- 6  Other
- 7  None

Minutes  Enter estimated time spent with sampled provider – Enter 0 if no provider seen

**VISIT DISPOSITION**

Mark (X) all that apply.

- 1  Return to referring physician/provider
- 2  Refer to other physician/provider
- 3  Return in less than 1 week
- 4  Return in 1 week to less than 2 months
- 5  Return in 2 months or greater
- 6  Return at unspecified time
- 7  Return as needed (p.r.n.)
- 8  Refer to ER/Admit to hospital
- 9  Other

**TESTS**

|   | Was blood for the following laboratory tests drawn on the day of the sampled visit or during the 12 months prior to the visit? | Most recent result  | Date of blood draw  |
|---|--|---|---|
| 1 | Total Cholesterol<br>1 <input type="checkbox"/> Yes →<br>2 <input type="checkbox"/> None found                                 | <input style="width: 50px;" type="text"/> mg/dL   | Month <input style="width: 20px;" type="text"/> Day <input style="width: 20px;" type="text"/> Year <input style="width: 20px;" type="text"/> <b>201</b> |
| 2 | High density lipoprotein (HDL)<br>1 <input type="checkbox"/> Yes →<br>2 <input type="checkbox"/> None found                    | <input style="width: 50px;" type="text"/> mg/dL   | Month <input style="width: 20px;" type="text"/> Day <input style="width: 20px;" type="text"/> Year <input style="width: 20px;" type="text"/> <b>201</b> |
| 3 | Low density lipoprotein (LDL)<br>1 <input type="checkbox"/> Yes →<br>2 <input type="checkbox"/> None found                     | <input style="width: 50px;" type="text"/> mg/dL   | Month <input style="width: 20px;" type="text"/> Day <input style="width: 20px;" type="text"/> Year <input style="width: 20px;" type="text"/> <b>201</b> |
| 4 | Triglycerides (TGs)<br>1 <input type="checkbox"/> Yes →<br>2 <input type="checkbox"/> None found                               | <input style="width: 50px;" type="text"/> mg/dL   | Month <input style="width: 20px;" type="text"/> Day <input style="width: 20px;" type="text"/> Year <input style="width: 20px;" type="text"/> <b>201</b> |
| 5 | HbA1c (A1C) (Glycohemoglobin)<br>1 <input type="checkbox"/> Yes →<br>2 <input type="checkbox"/> None found                     | <input style="width: 50px;" type="text"/> %   | Month <input style="width: 20px;" type="text"/> Day <input style="width: 20px;" type="text"/> Year <input style="width: 20px;" type="text"/> <b>201</b> |
| 6 | Blood glucose (BG)<br>1 <input type="checkbox"/> Yes →<br>2 <input type="checkbox"/> None found                                | <input style="width: 50px;" type="text"/> mg/dL   | Month <input style="width: 20px;" type="text"/> Day <input style="width: 20px;" type="text"/> Year <input style="width: 20px;" type="text"/> <b>201</b> |
| 7 | Serum creatinine<br>1 <input type="checkbox"/> Yes →<br>2 <input type="checkbox"/> None found                                  | <input style="width: 50px;" type="text"/> 1 <input type="checkbox"/> mg/dL<br>2 <input type="checkbox"/> μmol/L | Month <input style="width: 20px;" type="text"/> Day <input style="width: 20px;" type="text"/> Year <input style="width: 20px;" type="text"/> <b>201</b> |

**CPT CODES**

Enter Current Procedural Terminology (CPT) or Healthcare Common Procedure Coding System (HCPCS) code. Up to 18 CPT codes can be listed.

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## **Appendix II - Provisional Summary of Summer Program**

# ORC Summer Program in Clinical Research Program ● TCOM Class of 2025

## Summer 2022 - Didactic Sessions (via Zoom)\*

| Monday                          | June 6  | Tuesday                        | June 7  | Wednesday                            | June 8  | Thursday                             | June 9  | Friday   | June 10 |
|---------------------------------|---------|--------------------------------|---------|--------------------------------------|---------|--------------------------------------|---------|--|---------|
| Introduction to program         |         | Biomedical literature searches |         | Cross sectional/cohort studies (7)   |         | Randomized controlled trials (10/11) |         | Cause and effect in research (9)                             |         |
| Getting started in research (1) |         | Subject recruitment (3)        |         | Case-control studies (8)             |         | Sample size (5-6)                    |         | IRB protocols and guidelines (14)                            |         |
| The research question (2)       |         | Research measures (4)          |         | Data management (16)                 |         | Open-Epi software                    |         | NAMCS Survey   |         |
|                                 |         | Questionnaires/interviews (15) |         |                                      |         |                                      |         | SPSS data management/analysis                                |         |
| Monday                          | June 13 | Tuesday                        | June 14 | Wednesday                            | June 15 | Thursday                             | June 16 | Friday   | June 17 |
| Studies of medical tests (12)   |         | Journal Club                   |         | Systematic review/meta-analysis (13) |         | Journal Club                         |         | <b>Group projects-initial research concept presentations</b> |         |
| SPSS data management/analysis   |         | Group project development      |         | SPSS data management/analysis        |         | Group project development            |         |  |         |
| Group project development       |         |                                |         | Group project development            |         |                                      |         |  |         |
| Monday                          | June 20 | Tuesday                        | June 21 | Wednesday                            | June 22 | Thursday                             | June 23 | Friday   | June 24 |
| Journal Club                    |         | SPSS data management/analysis  |         | Journal Club                         |         | Journal Club                         |         | <b>Group projects-final results presentations</b>            |         |
| Group project development       |         | Group project development      |         | Group project development            |         | SPSS data management/analysis        |         |  |         |
|                                 |         |                                |         |                                      |         | Group project development            |         |  |         |

\*Textbooks will be Hulley, et al, Designing Clinical Research, 2013 (required); and Field, Discovering Statistics Using IBM SPSS Statistics (optional). Content is color-coded according to type of activity and front-loaded so that students will have time to apply knowledge to present and critique an article in Journal Club and to develop a simple group project (with oversight of the Program Director and/or other faculty and staff). In addition to required attendance at didactic sessions noted herein, students will be required to devote full-time effort during the entire three-week period to complete required reading assignments, work on group journal club presentations, and group research projects. Textbook chapter readings are noted in parentheses. Other assigned readings will be available in Canvas. Schedule is subject to change without notice, including changes needed to accommodate the actual number of students enrolled in the program.