**PROBLEM LIST**

**ADAPTABLE STUDY DESIGN**

**FINDING SITE, ASSOCIATED MORPHOLOGY Editorial Guide pp 161ff**

CORONARY ARTERIOSCLEROTIC VASCULAR DISEASE

<< 64572001 |Disease (disorder)| : << 363698007 |Finding site (attribute)| = << 41801008 |Coronary artery structure (body structure)|, << 116676008 |Associated morphology (attribute)| = << 28960008 |Arteriosclerosis (morphologic abnormality)|

CEREBROVASCULAR DISEASE (CEREBROVASCULAR ARTERIOSCLEROSIS)

<< 64572001 |Disease (disorder)| : << 363698007 |Finding site (attribute)| = << 28661005 |Cerebrovascular system structure (body structure)|, << 116676008 |Associated morphology (attribute)| = << 28960008 |Arteriosclerosis (morphologic abnormality)|

PERIPHERAL VASCULAR DISEASE (PERIPHERAL ARTERIAL ARTERIOSCLEROSIS)

<< 64572001 |Disease (disorder)| : << 363698007 |Finding site (attribute)| = << 840581000 |Structure of peripheral artery (body structure)|, << 116676008 |Associated morphology (attribute)| = << 28960008 |Arteriosclerosis (morphologic abnormality)|

MYOCARDIAL INFARCTION (COMMON COMPLICATION OF ASCVD)

<< 404684003 |Clinical finding (finding)| : << 116676008 |Associated morphology (attribute)| = << 55641003 |Infarct (morphologic abnormality)|, << 363698007 |Finding site (attribute)| = << 74281007 |Myocardium structure (body structure)|

**AND, OR, MINUS**

COLONIC CARCINOMA (excludes rectum)

<< 363346000 |Malignant neoplastic disease (disorder)| : << 363698007 |Finding site (attribute)| = << 71854001 |Colon structure (body structure)| /\* 62\*/

ADD STRUCTURE OF RECTUM

<< 363346000 |Malignant neoplastic disease (disorder)| : << 363698007 |Finding site (attribute)| = (<< 71854001 |Colon structure (body structure)| OR <<34402009|Rectum structure (body structure)| )

/\* 104 \*/

DIABETES MELLITUS EXCLUDING GESTATIONAL DIABETES

<< 73211009 |Diabetes mellitus (disorder)| MINUS <<11687002|Gestational diabetes|

/\*129-7=122\*/

**CAUSATIVE AGENT**

ALCOHOL USE DISORDER

<< 404684003 |Clinical finding (finding)| : << 246075003 |Causative agent (attribute)| = << 419442005 |Ethanol (substance)|

STREPTOCOCCAL DISEASES

<< 64572001 |Disease (disorder)| : << 246075003 |Causative agent (attribute)| = << 58800005 |Genus Streptococcus (organism)| /\*149 CONCEPTS\*/

CORONAVIRUS 2 DISEASE

<< 404684003 |Clinical finding (finding)| : << 246075003 |Causative agent (attribute)| = << 840533007 |Severe acute respiratory syndrome coronavirus 2 (organism)| /\* 13 \*/

**AFTER, DURING**

CORONAVIRUS DISEASE OR ITS COMPLICATIONS

(<< 404684003 |Clinical finding (finding)| : << 246075003 |Causative agent (attribute)| = << 840533007 |Severe acute respiratory syndrome coronavirus 2 (organism)| ) /\* 7 \*/

OR

COMPLICATIONS OF CORONAVIRUS DISEASE

(<< 404684003 |Clinical finding (finding)| : <<255234002|After (attribute)| = <<840539006|Disease caused by severe acute respiratory syndrome coronavirus 2| ) /\* 15 \*/

COMPLICATIONS OF EYE SURGERY

(<< 404684003 |Clinical finding (finding)| : << 255234002 |After (attribute)| = << 371587008 |Surgical procedure on eye region (procedure)| ) OR

(<< 404684003 |Clinical finding (finding)| : << 371881003 |During (attribute)| = << 371587008 |Surgical procedure on eye region (procedure)|)

**PATHOLOGICAL PROCESS**

WHAT TYPES OF PATHOLOGY DOES SNOMED USE IN CONCEPT MODEL?

<< 404684003 |Clinical finding (finding)| . 370135005 |Pathological process (attribute)|

PARASITIC INFECTION (PATHOLOGIC PROCESS PARASITIC INFESTATION)

< 64572001 |Disease (disorder)| : 370135005 |Pathological process (attribute)| = 442614005 |Parasitic process (qualifier value)|

/\* 1337 concepts \*/

**Procedures Editorial Guide pp 415ff**

CORONARY ARTERY BYPASS GRAFT

<< 71388002 |Procedure (procedure)| : << 405813007 |Procedure site - Direct (attribute)| = << 41801008 |Coronary artery structure (body structure)|, << 260686004 |Method (attribute)| = << 360021005 |Bypass - action (qualifier value)|

CORONARY ANGIOPLASTY

<< 71388002 |Procedure (procedure)| : << 405813007 |Procedure site - Direct (attribute)| = << 41801008 |Coronary artery structure (body structure)|, << 260686004 |Method (attribute)| = << 410817004 |Dilation repair - action (qualifier value)|, << 424226004 |Using device (attribute)| = << 310362005 |Angioplasty catheter (physical object)|

SURGICAL APPROACH VALUESET CURRENTLY IN PROCEDURES

<< 71388002 |Procedure (procedure)| . 424876005|Surgical approach| /\*102 values \*/03379005|Procedural approach|**RxNorm MEDICINAL PRODUCTS**

**PLAYS ROLE, HAS MANUFACTURED DOSE FORM Editorial Guide pp 283ff (Pharmaceutical and Biologic products)**

ANTIBACTERIAL CLINICAL DRUGS AVAILABLE FOR ORAL USE

<< 763158003 |Medicinal product (product)| : << 766939001 |Plays role (attribute)| = << 787994008 |Antibacterial therapeutic role (role)|, << 411116001 |Has manufactured dose form (attribute)| = << 385268001 |Oral dose form (dose form)| [2045 preparations]

ANTIBACTERIAL CLINICAL DRUGS AVAILABLE FOR SYSTEMIC ADMINISTRATION

<< 763158003 |Medicinal product (product)| : << 766939001 |Plays role (attribute)| = << 787994008 |Antibacterial therapeutic role (role)|, << 411116001 |Has manufactured dose form (attribute)| = (<< 385268001 |Oral dose form (dose form)| OR <<385287007|Parenteral dose form|) [2970 preparations]

ANTIBACTERIAL EYE DROPS

<< 763158003 |Medicinal product (product)| : << 766939001 |Plays role (attribute)| = << 787994008 |Antibacterial therapeutic role (role)|, << 411116001 |Has manufactured dose form (attribute)| = << 422060001 |Conventional release eye solution (dose form)|

EYE DROPS FOR GLAUCOMA

<< 763158003 |Medicinal product (product)| : << 766939001 |Plays role (attribute)| = << 773832000 |Antiglaucoma therapeutic role (role)|, << 411116001 |Has manufactured dose form (attribute)| = << 385276004 |Ocular dose form (dose form)|

[402 preparations]

WHAT MEDICATIONS DO I HAVE TO TREAT SCABIES?

<< 763158003 |Medicinal product (product)| : << 766939001 |Plays role (attribute)| = << 1010562001 |Scabicide therapeutic role (role)|

**MULTI-INGREDIENT CLINICAL DRUGS**

**HAS ACTIVE INGREDIENT, HAS PRECISE ACTIVE INGREDIENT, COUNT OF BASE OF ACTIVE INGREDIENTS,**

ALL ACTIVE INGREDIENTS IN AVAILABLE ANTICONVULSANT MEDICATIONS

< 63094006 |Medicinal product acting as anticonvulsant agent (product)|  . 127489000 |Has active ingredient (attribute)|

**PRESENTATION STRENGTH (DOSE) Editorial Guide pp284-**

**HAS CONCENTRATION STRENGTH NUMERATOR VALUE,…**

LISINOPRIL (BLOOD PRESSURE PILL) OL FORMULATIONS *5 MG AND STRONGER*

<< 763158003 |Medicinal product (product)| : << 762949000 |Has precise active ingredient (attribute)| = << 386873009 |Lisinopril (substance)|, 1142135004|Has numerator value| >= #5, << 732945000 |Has presentation strength numerator unit (attribute)| = 258684004 |milligram (qualifier value)|,1142139005|Count of base of active ingredients| = #1

[22 preparations]

ALL ACTIVE INGREDIENTS IN AVAILABLE ANTICONVULSANT MEDICATIONS?

< 63094006 |Medicinal product acting as anticonvulsant agent (product)| . 127489000 |Has active ingredient (attribute)|

[48 substances]

ANTIBACTERIAL CLINICAL DRUGS AVAILABLE FOR ORAL USE BUT *ALLERGY TO SULFA DRUGS*

(<< 763158003 |Medicinal product (product)| : << 766939001 |Plays role (attribute)| = << 787994008 |Antibacterial therapeutic role (role)|, << 411116001 |Has manufactured dose form (attribute)| = << 385268001 |Oral dose form (dose form)|) MINUS

(<< 763158003 |Medicinal product (product)| : 762949000 | Has precise active ingredient (attribute)| = << 372788003 |Substance with sulfonamide structure and antibacterial mechanism of action (substance)|)

[1905 preparations]

**OBSERVABLE ENTITIES Editorial Guide pp 248ff**

**LABORATORY MEDICINE**

**INHERES IN, COMPONENT, RELATIVE TO, PRECONDITION**

BLOOD SUGAR

<< 363787002 |Observable entity (observable entity)| : << 246093002 |Component (attribute)| = << 67079006 |Glucose (substance)|, << 704319004 |Inheres in (attribute)| = << 261226001 |Blood component (substance)|

RANDOM BLOOD GLUCOSE LEVEL

( << 363787002 |Observable entity (observable entity)| : << 246093002 |Component (attribute)| = << 67079006 |Glucose (substance)|, << 704319004 |Inheres in (attribute)| = << 261226001 |Blood component (substance)| )

MINUS

(<< 363787002 |Observable entity (observable entity)| : << 704319004 |Inheres in (attribute)| = << 261226001 |Blood component (substance)|, << 246093002 |Component (attribute)| = << 67079006 |Glucose (substance)|, << 704326004 |Precondition (attribute)| = << 703763000|Precondition value (qualifier value)|)

HEMOGLOBIN A1C (GLYCOHEMOGLOBIN) FRACTION

<< 363787002 |Observable entity (observable entity)| : 246093002 |Component (attribute)| = << 733829007 |Glycated hemoglobin (substance)|, 704325000 |Relative to (attribute)| = << 38082009 |Hemoglobin (substance)|

TESTS FOR COVID-19 ACTIVE DISEASE

RNA/DNA OR PROTEIN ANTIGEN IN BODY FLUID

( << 363787002 |Observable entity (observable entity)| : 246093002 |Component (attribute)| = << 1240411000000107 |Ribonucleic acid of severe acute respiratory syndrome coronavirus 2 (substance)| )

OR

(<< 363787002 |Observable entity (observable entity)| : 246093002 |Component (attribute)| = << 840536004 |Antigen of severe acute respiratory syndrome coronavirus 2 (substance)|)

THROAT SWAB FOR RNA

<< 363787002 |Observable entity (observable entity)| : 246093002 |Component (attribute)| = << 1240411000000107 |Ribonucleic acid of severe acute respiratory syndrome coronavirus 2 (substance)|, 704327008 |Direct site (attribute)| = << 461911000124106 |Swab specimen from oropharynx (specimen)|

SCREEN FOR SEDATIVE USE

<< 363787002 |Observable entity (observable entity)| : << 246093002 |Component (attribute)| = << 372614000 |Sedative (substance)|

SCREEN FOR OPIOIDS BLOOD OR URINE

<< 363787002 |Observable entity (observable entity)| :

<< 704319004 |Inheres in (attribute)| = (<< 256906008 |Blood material (substance)| OR <<78014005|Urine (substance)|),

< 246093002 |Component (attribute)| = << 404642006 |Substance with opioid receptor agonist mechanism of action (substance)|

ANTIBIOGRAM AND DECISION SUPPORT FOR ANTIBIOTIC TREATMENT

BACTERIA IDENTIFIED

<< 363787002 |Observable entity (observable entity)| : << 704319004 |Inheres in (attribute)| = << 409822003 |Domain Bacteria (organism)|, << 370130000 |Property (attribute)| = << 118584009 |Presence or identity (property) (qualifier value)|

ANTIBACTERIAL SUSCEPTIBILITIES

<< 363787002 |Observable entity (observable entity)| : 370130000 |Property (attribute)| = << 118588007 |Susceptibility (property) (qualifier value)|, << 704320005 |Towards (attribute)| = << 895275007 |Medicinal product acting as antiinfective agent (product)|

ANTIBIOTIC MEDICINAL PRODUCTS IN RXNORM FOR TREATMENT

<< 763158003 |Medicinal product (product)| : << 127489000 |Has active ingredient (attribute)| = << 419241000 |Substance with antibacterial mechanism of action (substance)|

DILANTIN BLOOD LEVELS

<< 363787002 |Observable entity (observable entity)| : 704319004 |Inheres in (attribute)| = << 762634006 |Acellular blood (substance)|, 246093002 |Component (attribute)| = << 387220006 |Phenytoin (substance)|

WHAT BLOOD TESTS ARE AVAILABLE TO MONITOR ANTICONVULSANTS?

<< 363787002 |Observable entity (observable entity)| : 704319004 |Inheres in (attribute)| = << 762634006 |Acellular blood (substance)|, 246093002 |Component (attribute)| =

(< 63094006 |Medicinal product acting as anticonvulsant agent (product)|  . 127489000 |Has active ingredient (attribute)| )

**OBSERVABLES**

**ANATOMIC PATHOLOGY**

/\*—————————————————————\*/

/\*CASE #1A \*/

/\*The research is interested in knowing the number of cases of primary malignancy in the digestive system \*/

/\*These are observations made by the pathologist about a histology that is a primary tumor located in some part of the digestive system\*/

< 363787002 |Observable entity (observable entity)|:

/\*Look for assessments about histologic type property)\*/

370130000 |Property|=6030001000004102 |Histologic type (property)|,

/\*The histology is a primary malignant neoplasm\*/

704319004 |Inheres in|=86049000 |Malignant neoplasm, primary|,

/\*The neoplasm is located in any subtype of the digestive system\*/

718497002 |Inherent location|=<<86762007 |Structure of digestive system (body structure)|

/\*Notice how this query returns ALL parts of the digestive system from Mouth to anus\*/

/\*——————————————————————————————\*/

/\*CASE#1B\*/

/\*The researcher REALLY wants to know about the number of cases of GI cancer\*/

/\*The neoplasm is located in any subtype of the GI tract\*/

/\*718497002 |Inherent location|=<<122865005 |Gastrointestinal tract structure (body structure)|\*/

/\*——————————————————————————————\*/

/\*CASE #1C\*/

/\*Well, really, the investigator is interested in CRC cancer cases\*/

/\*The neoplasm is located in the colon, rectum or anus\*/

/\*718497002 |Inherent location|=(<<14742008 |Structure of large intestine (body structure)| OR <<281088000 |Structure of anus and/or rectum (body structure)|)\*/

/\*This returns appendix, too. Can refine with 71854001 |Colon structure (body structure)|. Note that rectum is missing…needs modeling\*/