2005 VARIABLE DEFINITIONS
FOR GCNKSS
Chart Abstraction

Page 1 Demographics

D-1: abstractor-please enter your initials

D-2: Date of initial chart review- enter the date that you completed the abstraction. Use MM/DD/YY format.

D6: date of admission-Use the date of actual admission to the hospital. Find this in the ED record as admission date. For outpatient charts in patients that were never admitted, leave this field blank.

D7: date of discharge-use date of actual FINAL discharge from hospital. For outpatient charts in patients that were never admitted, leave this field blank.

D-5:Additional datapoint: outpatient visit date-use the date of the office visit to the clinic or primary care physician, regardless of whether they went to the hospital or not.

D-7a: Date of death: sometimes we find out about a death in the future and need to enter it into the database, so if the patient is alive at discharge don't draw a line through this space. If they have expired enter it here also.

D8-: institution-list the acute institution. Please note, if the patient visited multiple institutions, fill out page 1A. Also, if the information is incomplete in this record, you may need to pursue the other institution charts. Medical record number should be institution specific.

D11: ICD-9 code: Take this from the discharge attestation sheet. This should be on your list of stroke-related codes in Appendix. If there is no stroke related code at all, please call Kathy Alwell to see which code should be listed here.

D12: primary or secondary? –list whether the stroke related code was a primary or secondary code.

D14: Name- Enter last, first names and middle initial

D15: Address- enter the patient's address where they resided at the time of their stroke. If they resided in a nursing home or other institution, enter the address of that institution, not their prior home address. Residing means living at that address for three months or more.

D16: phone number: enter the patient's home phone number. If they reside in an institution, enter the institution phone number.

D17: social security number- enter their SSN#. If they don't have an SSN, leave this field blank.

D18: Age-enter the patient's age at the time of the stroke. This must be verified from the face sheet, even if this is contradicted by the progress notes.

D19: date of birth- see above. Enter the year of birth as four digits.

D20: gender- enter M for male, or F for female.

D21: patient's race-enter the race as documented on the face sheet. If there is any question of category (pacific islander, for example) refer to Appendix for a description of racial categories by the NIH.

D21a: ethnic group- enter the patient's ethnicity as seen on the face sheet, H = Hispanic, and N = non-hispanic. If it is not listed as Hispanic on the face sheet, use documentation in the face sheet. If ethnicity is not documented anywhere, enter U.

D22: type of insurance- enter the insurance type as noted on the face sheet. If the patient has more than one type of insurance, list all that apply.

D23: marital status-enter the marital status as noted on the face sheet.

D24: employment status- enter their employment status at the time of their stroke.

D25: residence at time of admission- see above for description of residence

D26: site where stroke occurred- enter where the patient was when the stroke symptoms first began.

D27: case-enter your clinical overall opinion about whether this is a case or not. Note, must meet all inclusion criteria for our study, and be a case in your clinical judgment.

D31: reason for exclusion-enter the reason you feel this is not a case. Leave blank if case.

D29: person determining status of case-enter who made the final call regarding whether to fully abstract the case.

Complete the rest of this page only if case.

D30:type of case-give your clinical impression as to the stroke subtype. See Appendix for a listing of stroke subtype categories and definitions by ICD-9 codes.

D-41 first medical contact: the first person with medical training that speaks to or evaluates the patient. If someone calls 911, and is seen by EMS, first medical contact is "911". If they drive themselves to the ED, then first medical contact is "ED". If a patient resides at a nursing home, and the home calls 911, the first contact is still "Nursing home". "Hospital" should only be marked if a new event occurs, they are directly admitted, and they don't see their physician for that event until hospitalized. If they die with no medical contact whatsoever, then mark "coroner", however this must be verified that they had no medical contact. If you find a case only at the coroner's office, please discuss with Kathy Alwell.

D-42: date of first medical contact

D-43: did this event occur and was it diagnosed and treated in the outpatient setting? Mark this question yes if the event occurred in an outpatient setting (primary care doctor, nursing home, clinic) AND the patient did NOT come to either an ER or a hospital for their symptoms. For example, if someone comes in for a carotid endarterectomy after a TIA, but never came to the hospital for their symptoms at the time of the event, mark this question yes. Another example: if the event is picked up in the outpatient setting, but the patient WAS hospitalized (and miscoded), then mark the answer to this question NO.

D-44: films to be pulled: small vessel ischemic strokes, infarcts with hemorrhagic conversion, and all interviewed patients, or any events that you are questioning whether it is one or two events (ie infarct after SAH, worsening vs. second event). See Appendix for ischemic stroke subcategories (TOAST) for assistance with small vessel, for example.

D-45: note field- explain why something is not a case or anything you deem important

Page 1a Additional charts for this patient that are not separate abstracted events

This page is for additional charts that belong to this patient but are not separate cases, such as ED transfers, rehab, etc. This will account for all the charts you review without doing a separate demo.

Page 1b Prior TIA page

This is for a prior TIA in time that you have little information on but are able to determine case. **Call coordinator if unsure** if this event should be recorded on a full abstract or on this page only.

Page 2 EMS

EMS-2: record whether the chart mentions if there was an EMS run. If possible, try to differentiate between 911 dispatched EMS and transport from other facilities.

EMS-3: type of run record whether the EMS run was advanced life support or basic life support, should be notated on the run sheet. If not noted on run sheet, then mark "ALS" if the patient had cardiac monitoring en route. Mark unavailable if no run sheet is in the chart.

EMS-3a: squad and run number taken off the run sheet

EMS-3b: Did EMS respond to the patient's home (see definition of residence above)?

EMS-3c: Enter the address, or at least the name of location where EMS responded if not at home

EMS-3d: enter yes here if the EMS data was obtained by traveling to the firehouses or dispatch centers.

For EMS4-10, if not documented on run sheet, or run sheet not available, mark unknown and do not use ED or other estimations of time in the chart except EMS-8.

EMS6a: date recorded on EMS Sheet

EMS6b: time of 911 call if noted on the run sheet or CAD database

EMS6c: date of dispatch of EMS as noted on run sheet

EMS7: dispatch time as noted on run sheet

EMS8: at scene time as noted on run sheet. ***If not documented, use the time of first vital signs.***

EMS9: leaving the scene for hospital time as documented on run sheet

EMS10: arriving at the hospital as documented on run sheet.

EMS10a.b.c.d.e.f: if there was a significant delay in EMS transport, mark what was, in your opinion, the most significant reason for the delay as documented in the run sheet.

EMS11: chief complaint as noted on EMS run sheet in their own words. For example, "Left sided weakness", do not infer they meant "stroke or TIA".

EMS-4: date of 1st EMS evaluation

EMS-5: time of 1st EMS evaluation

EMS13-16: vital signs as documented on run sheet

EMS23: cardiac monitor on the patient when en route?

EMS27: supplemental oxygen given in the field?

EMS28: how much oxygen was given as documented on run sheet

EMS 29: was supplemental glucose given (D50)?

EMS33: was the patient intubated by EMS?

EMS34: was a fingerstick glucose documented on the run sheet? Document value.

EMS36: other, list any other significant procedures performed by EMS in the field.

Page 3 ED Record

ED1: was the patient seen in an emergency department?

ED-2: name of the ***first*** hospital emergency department in which the patient was seen.

ED7,8: first recorded ED arrival date and time. Often noted in ED nursing documentation.

ED10: did the patient get sent from the ED for a CT scan of the brain?

ED12: the time the patient left the ED for a CT scan of the brain as noted in nursing notes.

ED13: disposition from ED

Ed13A: if transferred to another hospital, list hospital name

ED14, 15: date and time of hospital admit or transfer: put in the actual time when the patient left the ED in question to go to the floor or other hospital.

ED16,17: if the patient is discharged to home from the ED fill in these dates and times. (leave blank if admitted)

ED18: fill in the diagnosis as noted by the treating emergency physician.

ED36-39, 41: if a Glascow coma score was documented by ED nursing or physicians, mark their score. If not documented, but you are able to estimate, mark your score and note "estimated" on ED 41

ED44: was the patient intubated in the ED

ED45: was an arterial line placed in ED? Can be radial or femoral.

ED45a: first documented temperature of the patient in Farenheit

ED47-48: mark the **first** blood pressure documented in the ED.

ED46-54: was an antihypertensive med given? See Appendix for drug names and categories.

ED46a: blood pressure recorded that determined treatment needed, could be 1st or a subsequent one but should be the closest to the treatment time. Then follow up blood pressures and subsequent treatments.

Page 4 Symptoms

SX page: fill out for all cases, describing symptoms that brought them to medical attention, regardless if they have already resolved.

SX-1: weakness as related in the history. If generalized, or "fatigue" mark 3.

SX-1a,b,c: mark where the weakness was

SX-2: numbness or tingling/paresthesias/sensory loss

SX-2a,b,c: mark where the sensory change was

SX-3: headache associated with symptoms or is the primary reason for presentation

SX-4: mental status: mark the closest category describing the patient's mental status.

SX-5: speech. Try as best as you can to distinguish between slurred or difficult to understand speech from a primary language problem. If the speech is purely slurred or dysarthric, mark "slurred". If the language is abnormal (expressive, receptive aphasia, word-finding, word salad), then mark "aphasia" . If the patient has both, then list both numbers. If you aren't sure, mark "abnormal, unknown type".

SX-6: mark this if they describe difficulty walking or falling.

SX-7: Vision: mark the category describing their visual problems. "partial loss" can mean either only vision loss in one eye, or part of the visual field in both eyes. "Photophobia" means a sensitivity to light.

SX-8: Dizzy/vertigo: documented

SX-9: Ataxia: recorded only if documented (If they note dyscoordination, ataxia, terminal dysmetria, dysdiadochokinesia this would count as "limb ataxia".)

SX-10: Dysphagia/drooling: record if either is documented, same mechanism

SX-11: Nausea/vomiting: documented

SX-12: Seizure/jerking: if documented with this event, not history of

SX-13: other: describe any other stroke symptoms that brought them to medical attention.

SX-14: documented that symptoms duration is greater or less than 24 hrs

SX-16: **tell the story (ALWAYS!!!) Looking for acute onset. What is new? What makes this event a case? Do they get back to baseline? What remains? List all that is pertinent to make this event a stroke or a TIA.**

<u>Page 5 Medical therapies prior to stroke</u>

Med 0: only check this if they were taking no medications, not even anything over the counter

Med-1-26: pull these from as many sources as you can, don't rely on just one medication list if possible. **Aspirin** is the only medication that we are collecting doses, so just write the aspirin dose next to the word aspirin on the blank. **Possible responses are ASA 50, ASA 81, ASA 325, or ASA NOS if dose is unknown.**

Med 29: Were any of their antiplatelet/anticoag medications stopped by a physician prior to this event? (these are listed separately)

MED 30-36:record date if known and reason if known

Pages 6 & 7 Stroke Evaluation

SE-1: date of stroke: this should be when the symptoms first started, OR when they were last seen normal.

SE-1a: time of stroke known? Yes or no, if time of stroke is not known, but can be estimated from documentation in the chart, then fill out SE-3

SE-2: enter the time of stroke onset if known

SE-3: if time of stroke is estimated, pick one of the following:

- "**woke with symptoms**": patient awoke with symptoms, and had been asleep for more than 6 hours,
- **>24 hours ago**": if the patient's symptoms began more than 1 day ago.
- "**after midnight**": 12:01am-6am,
- "**morning**":6:01am-12pm,
- "**afternoon**":12:01pm-6pm,
- "**evening**": 6:01pm-12am.
- If the time of onset is completely unknown, then don't fill out this question, only fill out "no" in response to SE-1a

SE-7a: only fill in this blood pressure if they did not go through the ED or use EMS (direct admits, strokes in-house, or outpatient). Mark the first documented blood pressure after their stroke.

SE-14: seizure: mark yes for this if there was noted seizure activity (jerking, complex partial seizure, grand mal, petit mal) in the acute setting of stroke, (meaning prior to medical attention or within the ED).

SE-15: modified Rankin rating, this is reflective of the patient prior to the event

SE-15a: describe the disability that interferes with their activities of daily living

SE-15b,c: do they use a cane or a walker

SE-16: evaluated by the stroke team, meaning the GCNK Stroke team (if yes, by phone or in person)

SE-16a, b, c, d: mark if the patient was seen by a neurologist, neurosurgeon, primary care physician, and/or a hospitalist. Only check this if an exam was documented in the chart by said physician.

SE-17a: Documented dysphagia or drooling

SE-18a: Nystagmus: is an involuntary rhythmic shaking or wobbling of the eyes (this will be documented)

SE-18b: Asymmetric pupils: documented inequality of pupils

SE-19a: Tongue deviation: documented

SE-20a: Gait Abnormality: any abnormality that causes them to have a problem walking

SE-21a: Hunt-Hess Grade documented for hemorrhages only (record documented number)

SE-21b: Fisher Grade documented for hemorrhages only (record documented number)

SE-22: a full NIHSSS done as documented by Stroke Team only

SE-23: list the score given

SE-24a: The only times that you should NOT attempt to estimate stroke severity is when there are no symptoms given, or if they resolved prior to arrival, or if they die prior to arrival. Otherwise, give your best attempt at estimating severity using the scale in SE-27-41.
Prospective is the actual scale being done by the stroke team and retrospective is you taking an examination and estimating the score.

SE-25, 26: **date and time of examination** that allowed you to estimate stroke severity

SE-26a: what documentation did you take the stroke scale evaluation from

SE-27-41: see descriptions on the stroke page and some hints below)

SE-31: if there is visual loss in only one eye, mark partial hemianopia.

SE-32: if the face is weak in the upper and lower portions, or if they say "Bell's palsy", mark 3.

SE-33-36: strength as documented in chart. Often strength is rated on a scale of 0-5, with MRC5 being full, MRC4 being weak, MRC3 is antigravity only, MRC2 not antigravity but some movement, MRC1 is twitch only, and MRC0 is no movement or "plegic". MRC4 is a very large category, including the mild weakness to the very weak. If they say a "drift" or "pronator drift" only, mark 0.

SE-37: If they note dyscoordination, ataxia, terminal dysmetria, dysdiadochokinesia this would count as "limb ataxia". If they only state "ataxia" but don't specify one or two limbs, mark one limb.

SE-38: see description on page

SE-39: this question purely deals with language. Slurred speech does not count for this question. Expressive aphasia means difficulty getting the words out, halting, non-fluent, telegraphic frustrated, intact comprehension speech patterns. Receptive aphasia means fluent, but using the wrong words, word salad, loss of insight into language difficulty, loss of comprehension. If they say "garbled speech" only, then mark this question no, and mark question SE-40 yes for dysarthria.

SE-40: this question only has to do with the clarity of speech production, not language. If they say slurred speech, dysarthria, sounds like they're drunk, then mark dysarthria.

SE-41: see description on page.

Page 8 Stroke History

SH-1: prior history of stroke: mark yes for this for any kind of stroke, whether it's ischemic or hemorrhagic

SH-2: number of strokes (not silent)

SH-3: significant impairment from prior strokes as defined by documented residual deficits that interfere with daily functioning. Please describe.

SH-4-7: if there is a prior stroke mentioned in the record that occurred within the study period, call Kathy Alwell to let her know and investigate. If the record just mentions a "hemorrhage" previously, mark ICH. Mark date of stroke, if unknown mark 88/88/88.

SH-8: prior history of cerebral aneurysm as noted in record.

SH-9: prior history of AVM

SH-10: mark this if the record mentions a TIA or a "mini-stroke"

SH-10a,b: if there are any questions about prior TIA, call Kathy Alwell. If the TIA is described quite well in the record, including timing and symptoms, and the patient did not get seen in an ED or get admitted for that event, please fill out the 1B page describing the event. If they were admitted or seen in an ED, call Kathy Alwell.

SH-13-23: mark yes if the chart mentions a positive family history of that condition. If the chart specifically tells you which family members had this condition, only mark yes if it was a first degree relative (parent, child, sibling) or if they simply say "family history of".

Pages 9 & 10 Baseline Medical History

MHX: do not judge medical history by the medications they are on; only put "yes" to documented medical conditions prior to the event.

MHX-0: list the patient's weight in pounds. If in the chart as kg, please convert it to pounds prior to entry (1 lb = 2.2 kg). List height in feet and inches.

MHX-0a: current coumadin use

MHX-0b: list the reason why the patient is on coumadin, if notated in the chart. If it is not notated in the chart, but you feel comfortable relating it to a diagnosis, mark it.

MHX-1: history of hypertension. Mark this only if the patient has a PRIOR history of hypertension, not just if they present with high blood pressures.

MHX-2: drug treatment for hypertension. Mark this if the patient has been prescribed medication for hypertension (regardless if they were taking it)

MHX-3: history of PRIOR diabetes. Mark this as positive even if the chart says "borderline diabetes" or "diet-controlled diabetes".

MHX-4: current treatment; mark whatever is notated in the chart on admission

MHX-5: mark all that apply for types of treatment, including diet, oral meds (see appendix for list of oral hypoglycemics/treatments) or insulin

MHX-6: history of elevated cholesterol: mark this if there is a PRIOR history of elevated cholesterol, total or LDL. This does not refer to elevated triglycerides.

MHX-7: list the type of treatment (see list for cholesterol lowering agents)

MHX-8: history of coronary artery disease: mark this if the patient has had a prior myocardial infarct, CABG, coronary angioplasty/stenting, or unstable angina.

MHX-9: history of myocardial infarction, if this is yes, MHX-8 should also be yes. Include MI, subendocardial MI, non-q wave MI. Should be symptomatic, if the chart notes "old MI on EKG" or "hypo/akinetic segments on ECHO consistent with prior MI" but does not note a symptomatic event, mark NO.

MHX-10: mark the date of the most recent MI.

MHX-11: atrial fibrillation by EKG/history: mark yes to this question if the patient has EVER had atrial fibrillation, whether in the past, or on admission. Mark "no" if the atrial fibrillation is new, and develops AFTER admission (and mark yes for question #EKG-12)

MHX-12: history of angina, as marked in the chart, or "unstable angina", or cardiac chest pain. If the angina is thought to be secondary to coronary artery disease, then MHX-8 should also be marked yes. (some angina can be related to other things, like vasospasm)

MHX-13: history of congestive heart failure. This can include right or left ventricular failure, "severe diastolic dysfunction"

MHX-13a: baseline ejection fraction, if noted on H&P, prior to admission and not from echo.
MHX-14: heart valve replacement: do not mark this if the patient had a heart valve "repair", or "valvuloplasty" only if totally replacement happened.
MHX-14a: list the type of valve used. Mark "biologic" if the valve is not mechanical, ie from a porcine or cadaveric.

MHX-15: list the site of valve replacement. This may be listed in the chart as T = tricuspid, P = pulmonic, M = mitral, and A = aortic.

MHX-16: prior CABG

MHX-17: date of most recent CABG

MHX-18: cardiac vessel angioplasty/stenting prior history

MHX-19: date of most recent angioplasty

MHX-20: cardiac pacemaker in place

MHX-20a: reason for pacemaker, if known. Choices include 3rd degree heart block/bradycardia, sick sinus syndrome (also known as "tachy-brady syndrome"), or other.

MHX-20b: history of AICD (automatic implantable cardiac defibrillator). Note this is different from a pacemaker.

MHX-21: cardiomyopathy (list here if prior to admission on H&P, not if EF% is low on new ECHO)
This is used to subtype, so look for appropriate documentation.

MHX-22: history of extracranial carotid artery disease, must be >50% stenosis on diagnostic testing, but does not have to be symptomatic or is documented "hx of carotid artery disease"

MHX-23: carotid endarterectomy, list the side of all prior endarterectomies.

MHX-23a: side of endarterectomy

MHX-24: date of most recent endarterectomy

MHX-24a: carotid angioplasty or stent in the past?

MHX-24b: List side of all prior intravascular interventions.

MHX-23c: date of most recent intravascular carotid intervention

MHX23d: if the procedure note is available for the carotid stenting, please mark if they used a "distal protection device", meaning the "accunet", or umbrella, to catch emboli and protect the brain from stroke.

MHX-24e: mark this yes if the patient has had any major surgery within the past 30 days. Major surgery means that general anesthesia was used, or a surgery that is not an outpatient procedure.

MHX-24f,g: date of recent surgery and type

MHX-25: cerebral angiogram within 24 hours of symptom onset

MHX-26: coronary angiogram within 24 hours of symptom onset

MHX-26a: thrombolytic therapy given for a non-stroke reason. For example, myocardial infarction, peripheral arterial occlusion, graft thrombosis, etc.

MHX-27: recent emboli to peripheral arteries: mark if they had an embolus go to leg/arm/kidney gut (ie."cold, pulseless blue foot")

MHX-27a: recent history of DVT as noted on diagnostic testing

MHX-27b: Greenfield filter placed

MHX-27c: history of Peripheral Vascular Disease

MHX-28: dementia mark this if the chart notes a dementia history

MHX-28a: mark the type if the chart notes a type of dementia, don't try to guess

MHX-29: history of prior depression documented

MHX-30: sickle cell disease. Mark this if patient has true sickle disease, not just "sickle trait".

MHX-32: hemophilia as notated in the chart

MHX-33: HIV positive as marked in the chart, or "AIDS".

MHX-34, 35: history of brain tumor as marked in the chart. If a metastatic tumor, please write this in the note field, along with the site of the primary tumor (ie. Metastatic lung tumor). If a primary brain tumor, then note the type (ie GBM, oligo, medulloblastoma, etc)

MHX-36, 37: history of malignancy, list the type. Include skin cancers, exclude benign tumors, such as lipomas, or fibroid tumors, etc.

MHX-38: history of seizure, as documented in the chart. Does not have to be receiving treatment, but exclude "pseudoseizure".

MHX-38a: documented history of migraines

MHX-38b: note if the patient had an infection within the last 2 weeks. Do not include seasonal allergies in this field, only if the chart specifically states upper respiratory infection.

MHX-39: other significant medical conditions: list any other medical conditions that you think are relevant.

MHX-39a: influenza vaccine within the last year or documented as current.

MHX-39b: pneumonia within the past 5 years or documented as current.

MHX-40: list any notes that you want to share about their past medical history.

Page 11 Substance Abuse and Smoking

SA-1: smoking use (if noted ever past or present), cigarettes only

SA-2: number of years of smoking

SA-3: number of packs per day

SA-4: current smoker? Meaning any smoking within the last three months.

SA-5: how many years since last smoked? If they are a current smoker, enter 99, if unknown enter 88.

SA-6: Alcohol use: put yes if documented alcohol use in chart and then record amount, etc.

SA-7: type of alcohol that the patient most typically drinks

SA-8: servings of alcohol per day; see the abstract for definitions of "serving"

SA-9: mark this yes if the pt is noted to be a heavy drinker in the M.R. or if defined to be former, etc

SA-10, 12, 21: street drug use that the patient has reported, even if it is not current. Please specify the drug used if it is not marijuana or cocaine/crack.

SA-22: was there alcohol detected in the blood? If it was, and was significant, please mark the lab value on the lab page in the note field.

SA-23: drugs detected in urine or blood? Please mark what was detected in the note field

SA-24: street drug use within 24 hours of stroke onset by history only.

SA-25: notes about substance abuse not otherwise noted.

Page 12 Labs

LAB-1: were admission labs done or if in-house stroke those closest following dx of stroke/TIAevent?

LAB-2: location where admission/event labs done

LAB-3: date of admission/event labs drawn

LAB-4: white blood cell count

LAB-5: hemoglobin

LAB-6: platelet count

LAB-7: creatinine (usually part of the renal profile)(note: this is different from the creatinine clearance, often noted in the chart)

LAB-8: serum blood sugar on admission (fingerstick glucose can count for this)

LAB-14: protime

LAB-15: INR

LAB-16: PTT

LAB-22: CK mark the highest value noted in the record, and date

LAB-23: CKMB mark the highest value and date

LAB-23a: troponin mark the highest value and date

Answers to questions 9-13 should be drawn on a fasting sample if possible. *AM labs count as fasting for this abstract*
LAB-9: LDL

LAB-10: HDL

LAB-12: triglycerides

LAB-13: total cholesterol

LAB-17: anticardiolipin antibodies (also called antiphospholipid antibodies). If abnormal, please list the value, along with IgG or IgM in the note field.

LAB-18: lumbar puncture performed?

LAB-19: note the number of RBCs in the spinal fluid. If more than one tube sent, list the value from the last tube drawn (ie if tubes #1 and 4 are sent, list the value from tube #4). Please list the remaining CSF values in the note fields.

LAB-20: xanthochromia as noted by the LAB, not by the physician just by looking at it.
LAB-21: positive RPR or VDRL

LAB-24: sedimentation rate (ESR)

LAB-25: CRP (c-reactive protein)

LAB-26: serum homocysteine

LAB-27, 27a: was a urinalysis done? If so, was protein present? List the value.

LAB-28: fasting blood glucose level and date

LAB-29: hemoglobin A1C level (checking for diabetes) and date

LAB-30: BNP (beta naturetic peptide), list the highest value noted during the hospitalization and date; this checks for the presence and severity of CHF

LAB-29: notes from labs.

Page 13 EKG and Chest X-ray

EKG-1: admission (or at time of event) EKG done?

EKG-2: was the admission EKG noted to be abnormal?

EKG-3: sinus bradycardia (HR <60)

EKG-4: sinus tachycardia (HR>100)

EKG-5: PAC(premature atrial contractions)/PVC (premature ventricular contractions)

EKG-7: atrial fibrillation/atrial flutter?

EKG-8: 3rd degree heart block

EKG-9: LVH as interpreted by machine or by physicians

EKG-10: old MI as listed on interpretation

EKG-11: acute MI/or acute ischemic changes

EKG-12: lists runs of V-fib or V-tach

EKG-12a: sinus pauses of greater than 5 seconds?

EKG-12b: any ST changes (very common)

EKG-12c: new onset a-fib for this patient?

EKG-13: chest xray normal? If abnormal, see next question

EKG-13a: mark what the abnormality was noted on CXR. If you have any question, please describe report on the note field.

EKG-14: notes not otherwise noted above.

Page 14 Diagnostic Tests (CT and MRs)

Daignostic tests: (always attach ALL reports)
When filling out the imaging results, if multiple studies were done, try to include the initial, and then the most relevant scan at a later point. So if a patient were admitted for a month, with multiple scans, and then bled on day 12, you would fill out the initial scan, and the scan on day 12.

DIA-1: Was a head CT done at some point after stroke symptom onset?

DIA-1a: note the reason that the scan was done. Choices include initial scan done upon presentation, routine followup would be a scheduled exam regardless of clinical condition (such as a 24 hour safety scan after tpa), clinical deterioration as noted in the record, and other (describe in the note field below).

DIA-2: location of study performed (ie St. Lukes, Kentucky Diagnostic, etc)

DIA-3, 4: date and time of first head CT performed

DIA-5: note primary findings as noted in report. If the report states "infarct of undetermined age" please mark " infarct". Mark as many as applicable. Please print out the reports of brain imaging and attach to abstract. Hemorrhagic conversion refers to an infarct that has then bled. Often words like "petechial hemorrhage" will be used, and sometimes it can be difficult to differentiate from ICH. Any questions call Kathy Alwell.

DIA5a,b: any additional findings, mark here, if too long add rest to note fields

DIA-6: notes regarding head CT

DIA-7 thru 12: repeat of above for additional CT

DIA-7a: see 1a for description
If more than two relevant head CTs, please mark these on the note field DIA-25

DIA -13: was there an MRI done?
DIA-13a: see 1a for description

DIA-13b: was there diffusion weighted imaging done? (DWI)

DIA-13c: was the a diffusion-positive lesion seen? Meaning that there was an acute infarct seen on DWI. "T2 shine-through" seen on diffusion does NOT count as positive.

DIA-14: location of study?

DIA-15, 16: date and time of study

DIA-17: primary findings see DIA-5. On MRI, they can also see prior hemorrhagic changes, sometimes noted as "hemosiderin products". If this is noted, mark "prior hemorrhage". Note you can mark as many as apply.

DIA-18: notes on MRI

DIA-19 thru 24: same as above for 2nd MRI DIA-25: for notes or additional imaging

Page 15 Angiography page

Simply list all MRAs, CTAs, and Cerebral angios (with location of study, date and time of study, and if normal or abnormal and attach ALL reports)

Page 16 Carotid Ultrasound

CA-2: mark if there was a carotid ultrasound done after their stroke. If a previous carotid ultrasound was done and the results are known, notate these results in the notes field.

CA-3, 4: date and time of ultrasound

CA-5: carotid findings: mark if they were noted to be abnormal in the chart.

CA-6: CCA = common carotid artery. Note: mark "8" if they were unable to see the vessels, due to anatomy or other reasons (intubation, lines, habitus, etc)

CA-7: ICA = internal carotid artery

CA-9, 10, 11: ulceration: mark this if the text of the ultrasound report notes "ulcerated" plaque, mark the location of all ulceration.

CA-12: note any additional information, including prior ultrasounds.

Page 17 ECHO

EC-2: was an echocardiogram done during this hospitalization?

EC-3: date of echocardiogram.

EC-4: type: TTE aka 2D ECHO, or surface ECHO, vs. TEE(transesophogeal). "With bubble" can be either type. If both TTE and TEE are done, use the TEE report to fill out the remainder of the ECHO page.

EC-5: quality of study: this is usually noted only when it's a poor study, due to habitus or some other reason.

EC-6: was the ECHO noted to be normal or abnormal?

EC-7: mark this question yes if the left atrium is noted to be enlarged

EC-8: LVH or left ventricular hypertrophy. This is purely based on ECHO findings, do not mark this if it is only notated on the EKG

EC-9: valvular vegetation noted on ECHO, can also be called fibrotic vegetation, thrombus, mobile mass, or strands.

EC-10: cardiomyopathy: note this if marked in the report, or if EF is < ___%

EC-11: mural thrombus: this is a blood clot noted in the ventricle or atria of the heart. The can be associated with a ventricular aneurysm, but do not mark this unless they clearly stated there is a thrombus associated with it.
EC-12: mitral valve prolapse noted in report

EC-13: akinetic wall: this is a NON-moving segment of the ventricular wall on ECHO. Hypokinetic wall, poor EF, do not count.

EC-14: ventricular aneurysm: this is an outpouching of the ventricle wall, often this is akinetic as well.

EC-15: LV ejection fraction, simply list # (if 35-40, list 40)

EC-16: spontaneous ECHO contrast, or "smoke" seen in the heart or the proximal aorta.

EC-17, 18: mark this if they note that the mitral or aortic valve is stenosed or has sclerosis. If they note the "valve area", mark this in the note fields.

EC-19: patent foramen ovale: if the size of the defect is noted, ie "pencil-patent" or "probe-patent", note this in the note field. Also, if they say the shunt is "large" or if only present with valsalva maneuver, note this in the note field as well.

EC-20: atrial septal aneurysm: note if present. If they document the degree of "floppiness", say the excursion of the aneurysm was 10mm, then note this in the note fields.

EC-21: aortic atheromata: this is referring only to the aortic arch. If they describe the thickness of the atheromata, note this in the note field. Also document if they see "mobile" or "highly calcified" atheromata.

EC-22: other: note other finds not described above.
EC-23:notes

Page 18 Interventions:

IT-2: major operations: note if there any major operations AFTER their stroke during this hospitalization related to the stroke or TIA.

IT-3,4: date and time of said operation

IT-5: type of operation: clot evacuation refers to an ICH patient, with neurosurgical hematoma removal. If the patient receives a major endovascular neurological procedure (ie embolization of AVM, or other endovascular treatments), mark other and describe.
IT-5a list side involved

IT-6: intracranial pressure monitoring: can be either with a ventriculostomy, or a "BOLT".

IT-7: intubation: intubation related to the patient condition; not for surg. Procedure (w/ext. in PACU)

IT-8: intraventricular drain or shunt placed? This can be a ventricular drain, or a VP shunt.

IT-9: **IV meds** given for high blood pressure? This could include nipride, esmolol, nicardipine, labetolol, or others, but it must be a continuous drip and not bolus dosing.
IT9a: List meds given.

IT-10,11: IV medication for low blood pressure (pressors)? Choices include dopamine, dobutamine, levophed, or ?

IT-12: blood pressure: mark the blood pressure documented that is closest to 24 hours after their admission (irregardless of symptom onset) unless in-house stroke then it is 24 hours from stroke sx.

IT-13: mannitol: was mannitol given for increased ICP?

IT-14: was tpa given **following** the patient's stroke?

IT-14a: route of administration, if given for stroke

IT-14b: date and time of medication bolus/infusion starting

IT15: was any other thrombolytic therapy given after onset of stroke? Choices might include urokinase, reopro, eptifibatide, argatroban, Integrillin, or others. **Do not mark this question as yes if they received these drugs in a trial setting.**

IT15a: route of administration of other thrombolytic therapy

IT15b: date and time of administration of other thrombolytic agent.

IT15c: was there documentation of angioplasty or stenting in the cerebral vessels in the brain, this includes carotid vessels

IT-16: IV heparin given following ischemic stroke (this does not include subcutaneous heparin for DVT prophlaxis). Low molecular weight heparin does not count for this either.

IT-16a: date and time of start of Heparin gtt

IT-17: was nimodipine used following SAH?

IT-18,19: Enrolled in an acute stroke treatment trial? If so, name the trial and the possible treatments.

IT-20:notes for any explanation of entries on this page.

Page 19 Quality Indicators

QI-1: DVT prophylaxis: was there medical therapy given to prevent DVT in an immobilized patient. This means that they must be in bed and unable to walk to the bathroom on day 2 after symptom onset to qualify for DVT prophylaxis. If the patient is mobile and does not qualify for DVT prophylaxis, in your opinion, mark 9 for not applicable.

QI-1a,b,c,d: in the qualifying patient, mark whether DVT prophylaxis was sub q heparinoids or serial compression device, ted hose, or other and list. List all that apply.

QI-2: Did the patient have a foley catheter placed during their hospital stay?

QI-3: Was the patient placed on sliding scale insulin?

QI-4: swallowing evaluation: did the patient at risk for aspiration receive a swallowing evaluation?

QI5: smoking cessation intervention: this means that a medical professional documented that they discussed strategies for smoking cessation in the chart. If they don't smoke, mark 9.

QI6, 7, 8: Did physical therapy, occupational therapy, or speech therapy evaluate the patient. If the patient had no symptoms warranting an evaluation, mark 9.

QI9, 10, 11: Did the patient receive any PT, occupational therapy, or speech therapy during their hospital stay?

QI12: mark any notes that describe the above.

Page 21 Clinical Course

CC-7a: hemorrhagic transformation: this is defined as bleeding into a recent stroke, within 14 days. This could be a significant amount of blood or as small as petechial staining in the infracted area. Bleeding into another area of the brain, or bleeding into a stroke after 14 days, is considered a new event.

CC-7b: date that the hemorrhagic transformation was noted in the chart.

CC-7c: briefly describe the sequence of events around the time that bleeding was noted on CT scan.

CC-10a: was there an ischemic infarct noted after a hemorrhagic stroke? This should be only for those strokes that are not considered a separate event. If this comes up, you should call an MD to discuss, and attach the imaging report.

CC-8: vasospasm documented in chart, if yes, how was this determined? By transcranial Doppler (TCD)? On angiogram? Both? Or unknown?

CC-9: Was a TCD done- At UC, the TCDs are put into the medical record under progress notes, on a separate form.

CC-10: Did the serial imaging reports of an ICH, SAH, or IVH note that there had been significant growth of the hemorrhage?
CC-11: **acute** hydrocephalus- note if this is discussed in the imaging reports. This should NOT be marked if the patient has a history of chronic hydrocephalus.

CC-13: was pt diagnosed with Diabetes for the first time during this hospitalization?

CC-14,15: Clinical worsening: did the patient change in regards to symptoms, mental status, related to the stroke. List best date and time if known and describe and explain this change.

CC-2: subsequent stroke or TIA? This should only be marked for events that would be considered as a separate event. If you mark this yes, there should be another abstract for this additional event.
CC-3: date of subsequent event
CC-4: type of subsequent event

CC-12: note field describing above.

Page 22 Complications

This page is for significant complications that occur during the hospitalization AND following the stroke. If this is an in-hospital stroke, list only those events that occurred after the stroke was diagnosed. The discharge summary is a good place to start; you are not expected to read every word in the chart to determine this. We are only looking for significant complications, so don't stress! There is an attached definitions appendix.

CX-1 thru 12: list the code of the complication and the date it started. If a complication goes on during a hospitalization only list it once.

Page 23 Discharge Medications

DMED-0: check this box if the patient died in the hospital, or was discharged to hospice.

DMED-1-28: list all the discharge medications (when finally leaving hospital, not just going to in-house rehab, SNF, etc.). As with admission medications, list only the aspirin dose. Usually the best place is the discharge summary or discharge planning/instructions.

Page 24 Outcome

O-1: At final discharge is the patient alive or expired?

O-2: Date of death if applicable.

O-3: Cause of death: sometimes this is spelled out and sometimes it's a judgment call based on documentation, bit if unsure, put unknown.

O-3a: place of death (if in hospital setting)

O-4: Date of Rankin. This could be the discharge date or 30 days, but we want whatever puts us closer to 30 days. If they are in the acute setting and go to rehab or SNF, use the date of discharge from there unless it is > 30 days. If in doubt call Kathy.

O-5,6: Rankin Score: use discharge summary, PT/OT notes to determine this. They are not automatically a "4" if they use a cane or a walker; take their overall functioning capabilities into consideration. Then describe briefly why you assigned that score.

O-7,7a: Do they use a cane, do they use a walker; look for documented proof.

O-8-20: varying discharges surrounding this event and where they were discharged to; many times within the same institution

O-21: if not discharged to their home, name the facility where transferred, such as: Nursing home, rehab institution, someone else's home, etc.

O-22: any pertinent notes regarding outcome