A MANUAL OF GUIDELINES

FOR SCORING

THE CUMULATIVE ILLNESS RATING SCALE FOR GERIATRICS (CIRS-G)

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Written by

Mark D. Miller, M.D. with Adele Towers, M.D.
University of Pittsburgh
School of Medicine
Department of Geriatric Psychiatry
Western Psychiatric Institute and Clinic
3811 O'Hara Street
Pittsburgh, Pennsylvania 15213

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PHILOSOPHY AND DEVELOPMENT OF THE SCALE

Compiling and quantifying medical problems in the elderly population would allow meaningful comparison of medical burden and treatment outcomes in elderly patients with variable and complex medical problems. The Cumulative Illness Rating Scale (CIR), developed by Lin, Lin and Gurel,[1] published in JAGS in 1968 appealed to the writers intuitively as a user friendly but comprehensive review of medical problems by organ system, based on a 0 thru 4 rating, yielding a cumulative score. This scale was revised to reflect common problems of the elderly with an emphasis on morbidity using specific examples and was renamed the Cumulative Illness Rating Scale for Geriatrics (CIRS-G).

Some "arbitrary" decisions were made for categorizing certain conditions that could overlap more than one category and thus be counted twice, e.g., dementia is categorized in psychiatry although it overlaps with neurology, vertigo in the Ear, Nose and Throat category although it could also be in neurology, and CNS vascular lesions are confined to neurology although they technically overlap with "vascular." See individual sections of the manual for further details.

EDUCATION OF RATER

Nurses, physician assistants, nurse practitioners or physicians are required to have the necessary background for completing this scale. Due to the judgement required, some physician consultation may be necessary to clarify complex medical problems or their severity.

THE MINIMUM DATABASE REQUIRED

It is expected that every patient have a complete history and physical with a designated problem list, height, weight, and baseline labs including a complete blood count and differential, chem profile to include electrolytes, liver and kidney function, serum B12, thyroid function, cholesterol level, and an EKG. For rating psychiatric conditions the rater is expected to be familiar with the Folstein Mini-Mental Status Exam (Folstein, Folstein, & McHugh,[2] 1975) and the Diagnostic and Statistical Manual III-R (DSM III-R).[3]

Other information of more specialized nature will increase the accuracy of the rating in a given patient and should be used when available. Scoring "live" patients (rather than retrospective chart reviews) is recommended to be able to clarify points that could differentiate two score levels more accurately.

RATING STRATEGY

Scoring contingencies for every possible medical problem is obviously too cumbersome and quickly exhausts efforts to maintain simplicity and ease of use. The CIRS-G scale seeks to outline intuitive severity levels within each category to serve as a guide for the rater to interpolate the particular problem set of a given patient. We acknowledge that judgement is ultimately required for a "best fit" and that rigorous specificity may be traded off for the intuitive "face validity" and ease of use of this scale.

SCORING

Scoring was modified in the CIRS-G to yield five numbers: the total number of categories endorsed, the total score, the ratio of total score/number of endorsed categories (yielding a severity index per category), and the number of categories at level 3 and 4 for a given patient. This rating strategy allows the reader to see at a glance whether a given patient's total score reflects a few serious problems or multiple problems of mild to moderate severity as well as potential severe problems that merit a 3 or 4 rating. A single page scoring sheet also provides a rating for each organ system as well as space for a brief written description of the particular problem that merited the score (See sample scoring sheet).

Space provided on the scoring sheet is intended for a brief description of the problem that merited the endorsed score to facilitate more detailed retrospective analysis.

RATING ACTIVE VS CHRONIC PROBLEMS

Repeating this scale on the same patient at two different points of time may show a decline in total score if there were acute problems at time 1 that had resolved at time 2, however, this scale is clearly weighted toward chronic problems (including "status post" diagnoses) and is therefore cumulative such that the CIRS-G score will generally increase over time in a given patient.

RATING SUGGESTIONS (GENERAL)

We have found it easier to rate the severity of medical problems within a category by defining "mild" and "extremely severe" first, i.e., 1 and 4 and subsequently "moderate" and "severe," (2 and 3). The bulk of judgement, in our experience, rests in differentiating 2 and 3.

Note the following descriptors for a given level of severity:

0 - No Problem,

1 - Current mild problem or past significant problem

2 - Moderate disability or morbidity/ requires "first line" therapy

3 - Severe/constant significant disability/ "uncontrollable" chronic problems

4 - Extremely Severe/immediate treatment required/end organ failure/severe impairment in function

LEVEL 1

Level 1 - Current mild problem or past significant problem.

Any current medical problem that causes mild discomfort or disability, or has occasional exacerbations that have an overall minor impact on morbidity should be rated a "1," for example, a hiatal hernia with occasional heartburn treated with prn antacids. Medical problems that are not currently active but were significant problems in the past should also be listed as a "1," for example, passage of a kidney stone. Past childhood illnesses, minor surgery, uncomplicated healed fractures, minor injuries, teeth extractions, or events so remote without sequelae (e.g., one

febrile seizure in childhood) need not be listed at all. However, if any of the above leave a suspicion of potential future complications the rater should err on the side of inclusion, and briefly describe his/her concerns in the space provided.

LEVELS 2 AND 3

Level 2 - Moderate disability or morbidity/requires "first line" therapy.

Level 3 - Severe/constant significant disability/"uncontrollable" chronic problems.

Level 2 should be endorsed for medical conditions that require daily medication of "first line" nature, for example, patients requiring daily nonsteroidal anti-inflammatory drugs for arthritis or daily digoxin to control congestive heart failure.

Level 3 should be endorsed for chronic conditions that are not compensated for with first line therapy, for example, requiring steroids for rheumatologic conditions or lung disease. "Constant significant disability" describes patients whose underlying pathology is not fully compensated by medical regimens, for example, patients with exertional angina would endorse a level "3" because their underlying pathology is not fully compensated by medical regimens but many less strenuous activities are possible (i.e., level "4" is not indicated).

LEVEL 4 - Extremely Severe.

Immediate treatment required/end organ failure/severe impairment in function. This level describes the late stages of disease or disability within a category. Generally, this level reflects the failure to arrest the disease process with resulting disability, pain, or restricted activities of daily living (ADL's). Alternatively, any acute condition that requires immediate

treatment e.g., bladder outlet obstruction would also qualify as a "4." Severely limited ambulation or ADL's or sensory impairment would also endorse a "4," in the appropriate category for example, blindness, deafness or being wheelchair bound.

RATING MALIGNANCIES

Consistent scoring of severity ratings for various malignancies is a difficult problem. Each malignancy has its own rating system and prognostic indicators, the complexity of which would quickly exceed the scope of the intended simplicity and ease of use of this scale.

The following general guidelines are intended to provide a reasonably accurate delineation of medical burden for cancer without excessive complexity.

Level 1). Cancer diagnosed in the remote past without evidence of recurrence or sequelae in the past 10 years.

2). Cancer diagnosed in the past without evidence of recurrence or sequelae in the past five years.

3). Required chemotherapy, radiation, hormonal therapy or surgical procedure for cancer in the past five years.

4). Recurrent malignancy of life threatening potential/failed containment of the primary malignancy/palliative treatment stage.

These ratings are to be made in the appropriate organ category for a given malignancy.

ORGAN SPECIFIC CATEGORIES

The following organ specific categories will attempt to provide guidelines for consistent rating of comparable severity. Common conditions will be stressed with the focus on the "judgement strategy" that can then be applied to other problems not listed.

HEART

0). No problem.

1). Remote MI (> five years ago)/occasional angina treated with prn meds.

2). CHF compensated with meds/daily anti-angina meds/left ventricular hypertrophy/atrial fibrillation/bundle branch block/daily antiarrhythmic drugs.

3). Previous MI within five years/abnormal stress test/status post percutaneous coronary angioplasty or coronary artery bypass graft surgery.

4). Marked activity restriction secondary to cardiac status (i.e., unstable angina or intractable congestive heart failure).

The bulk of heart disease is encompassed by atherscleroticheart disease, arrythmias, congestive heart failure and valvular disease. Within each of these categories the 1-4 rating of severity must be judged.

Atherosclerotic Heart Disease

Mild through extremely severe stages of atherosclerotic heart disease are reflected in the above levels as outlined.

Congestive Heart Failure

Requiring daily medications for CHF merits at least a "2," intractable CHF a "4" and an intermediate condition a "3."

Arrhythmias

EKG findings of atrial fibrillation, right or left bundle branch block, or the necessity of daily antiarrhythmic drugs merits "2" at least, a bifasicular block a "3." In patients who require a pacemaker, placement for an incidental finding of periods of bradycardia during a holter monitor would score a "2," whereas placement of a pacemaker for cariogenic syncope would merit a "3."

Valvular Disease

Detectable murmurs that indicate valvular pathology without activity restriction would merit a "1," more severely compromising valvular disease would require a progressively higher rating.

Pericardial Pathology

A pericardial effusion or pericarditis would merit at least a "3."

VASCULAR

0). No problem.

1). Hypertension compensated with salt restriction and weight loss/serum cholesterol > 200 mg/dl.

2). Daily antihypertensive meds/one symptom of atherosclerotic disease (angina, claudication, bruit, amaurosis fugax, absent pedal pulses)/aortic aneurysm < 4 cm.

3). Two or more symptoms of atherosclerosis [see above].

4). Previous surgery for vascular problem/aortic aneurysm > 4 cm.

Hypertension

Defined as a persistently elevated diastolic pressure > 90 mm Hg. When managed drug free - "1," requiring single daily antihypertensive - "2," requiring two or more drugs for control or with evidence of left ventricular hypertrophy - "3."

Peripheral Atherosclerotic Disease

Evidence of at least one physical symptom or imaging evidence (e.g., angiogram) merits a "2," two or more symptoms a "3" and if bypass graft surgery was required or is currently indicated a "4" is merited.

Intracranial vascular event

For consistency, CNS vascular events are listed under neurology.

Aortic Aneurysm

If < 4 cm a "3," if > 4cm a "4."

HEMATOPOIETIC (blood, blood vessels and cells, marrow, spleen, lymphatics)

0). No problem.

1). Hemoglobin: females > 10 < 12, males > 12 < 14/anemia of chronic disease.

2). Hemoglobin: females > 8 < 10, males > 10 < 12/anemia secondary to iron, vitamin B12, or folate deficiency or chronic renal failure/total white blood cell count > 2000 but < 4000.

3). Hemoglobin: females < 8, males < 10/total WBC < 2000.

4). Any leukemia, any lymphoma.

Malignancy

Any hematological malignancy would merit a "4."

Anemia

Sex specific hemoglobin cut-offs are provided above. An identifiable etiology other than chronic disease merits a "2"or higher if the anemia is more severe.

Leucopenia

Total WBC cut-offs are provided.

RESPIRATORY (lungs,bronchi,trachea below the larynx)

0). No problem.

1). Recurrent episodes of acute bronchitis/currently treated asthma with prn inhalers/cigarette smoker > 10 but < 20 pack years.

2). X-ray evidence of COPD/requires daily theophylline or inhalers/treated for pneumonia two or more times in the past five years/smoked 20-40 pack years.

3). Limited ambulation secondary to limited respiratory capacity/requires oral steroids for lung disease/smoked > 40 pack years.

4). Requires supplemental Oxygen/at least one episode of respiratory failure requiring assisted ventilation/any lung cancer.

Smoking Status

Smoking is a significant respiratory and cardiovascular risk and is rated according to lifetime pack years (the number of packs smoked per day X the number of years smoked in their lifetime). Ex-smokers, e.g., those with 25 pack-years but who have been smoke-free for the most recent 20 years would merit a lower rating than a 25 pack-year patient who is currently smoking (in this case a "1" instead of a "2").

Chronic Bronchitis, Asthma, and Emphysema

These conditions are rated "1" if only prn inhalers are required, "2" if daily theophylline or inhalers are required, "3" if steroids are required and "4" if supplemental oxygen is required. More objective evidence, e.g. blood gases would help to sharpen the appropriate level.

Pneumonia

An acute pneumonia treated as an outpatient would merit a "3," and if hospitalization was required a "4". Two or more episodes of pneumonia in the past five years would merit a "2".

EYES, EARS, NOSE AND THROAT AND LARYNX

0). No problem.

1). Corrected vision 20/40;/chronic sinusitis/mild hearing loss.

2). Corrected vision 20/60 or reads newsprint with difficulty/requires hearing aid/chronic sinonasal complaints requiring medication/requires medication for vertigo.

3). Partially blind (requires an escort to venture out)/unable to read newsprint/conversational hearing still impaired with hearing aid.

4). Functional blindness/functional deafness/laryngectomy/requires surgical intervention for vertigo.

Impaired vision

To simplify the potential complexity of this category, the developers decided to score according to severity of the sensory disability and avoid rating each type of pathology. Therefore, whether cataracts, glaucoma, macular degeneration or other pathology is underlying the impaired vision, it is rated as follows: if they complain of decreased vision despite corrective lenses but have no restriction in activities and can read newsprint rate it a "1", if they have difficulty reading newsprint or driving due to vision - "2," if they cannot read newsprint or require assistance from a sighted person - "3," and if the are "functionally blind" i.e., unable to

read, recognize a familiar face from across the room or negotiate a novel environment alone, a "4" is merited.

Note: The term "functional" refers to ability to function and does not imply psychogenic origin.

Hearing Impairment

Similarly, hearing is rated by degree of sensory impairment as outlined above.

Vertigo, Lightheadedness and Dizziness

These complaints are very frequent in the elderly and would merit a "2" if medications are required for control and a "4" if surgical intervention is required.

Other conditions

Of the myriad of other EENT conditions, rating should be based on an estimate of the level of disability or impairment e.g., laryngectomy merits a "4" as it severely limits communication. etc.

UPPER GI (esophagus, stomach, duodenum)

0). No problem.

1). Hiatal hernia/heartburn complaints treated with prn meds.

2). Needs daily H2 blocker or antacid/documented gastric or duodenal ulcer within five years.

3). Active ulcer/guiac positive stools/any swallowing disorder or dysphagia.

4). Gastric cancer/history of perforated ulcer/melena or hematochezia from UGI source.

Ulcers

Symptoms of heartburn, and the diagnoses of hiatal hernia, gastritis and gastric or duodenal ulcer can be seen on a continuum of severity, i.e., mild symptoms requiring prn antacids merit a "1," daily antiacid regimens - "2," an active ulcer or in combination with guiac positive stools - "3," and a history of perforated ulcer or heavy bleeding from an UGI source a "4."

Cancer

Any UGI malignancy generally merits a "4." (see "Rating Malignancies").

LOWER GI (intestines, hernias)

0). No problem.

1). Constipation managed with prn meds/active hemorrhoids/status post hernia repair.

2). Requires daily bulk laxatives or stool softeners/diverticulosis/untreated hernia.

3). Bowel impaction in the past year/daily use of stimulant laxatives or enemas.

4). Hematochezia from lower GI source, currently impacted, diverticulitis flare up/status post bowel obstruction/bowel carcinoma.

Constipation

Constipation is rated by severity most easily by what type and how frequent laxatives are required or by a history of impaction as above.

Bleeding and Cancer

Any active bleeding generally merits a "4" as does the diagnosis of cancer (see "Rating Malignancies").

Diverticular Disease

A diagnosis of diverticulosis or a history of diverticulitis in the past merits a "2," an active flare-up of diverticulitis merits a "4" and an intermediate condition a "3."

LIVER (including biliary and pancreatic trees)

0). No problem.

1). History of hepatitis > five years ago/cholecystectomy.

2). Mildly elevated LFT's (up to 150% of normal)/hepatitis within five years/cholelithiasis/ daily or heavy alcohol use within five years.

3). Elevated bilirubin (total > 2)/marked elevation of LFT's (> 150% of normal)/requires supplemental pancreatic enzymes for digestion.

4). Biliary obstruction/any biliary tree carcinoma/cholecystitis/pancreatitis/active hepatitis. As the hepato-biliary system is difficult to assess through the physical exam, therefore, lab results must be used.

Gall bladder Disease

A remote cholecystectomy merits a "1," cholelithiasis or gall stones visualized with imaging techniques merits a "2," and acute cholecystitis a "4."

Hepatitis

A history of hepatitis within five years that is inactive at present merits a "2," active hepatitis a "4."

Pancreatic Disease

Pancreatic insufficiency requiring supplemental enzymes or chronic pancreatitis merits a "3," acute pancreatitis merits a "4."

Carcinoma

Any hepato-biliary tree carcinoma generally merits a "4" (see "Rating Malignancies").

RENAL (kidneys only)

0). No problem.

1). s/p kidney stone passage within the past 10 years or asymptomatic kidney stone/ pyelonephritis within five years.

2). Serum creatinine > 1.5 but < 3.0 without diuretic or antihypertensive medication.

3). Serum creatinine > 3.0 or serum creatinine > 1.5 in conjunction with diuretic, antihypertensive, or bicarbonate therapy/current pyelonephritis.

4). Requires dialysis/renal carcinoma.

Renal function must also rely on laboratory tests reflected in the above cut-off values. Some patients are asymptomatic with an elevated creatinine and thus differentiating a "2" from a "3" will depend on whether adjunctive medications are required. Either peritoneal or hemodialysis would merit a "4" as would any end stage renal state or renal carcinoma. Specific glomerular disease or nephrotic syndromes would merit a "2" or "3" depending on the treatment required.

GENITOURINARY (ureters, bladder, urethra, prostate, genitals, uterus, ovaries)

0). No problem.

1). Stress incontinence/hysterectomy/BPH without urinary symptoms.

2). Abnormal pap smear/frequent UTI's (three or more in past year)/urinary incontinence (non stress) in females/BPH with hesitancy or frequency/current UTI/any urinary diversion procedure/status post TURP.

3). Prostatic cancer in situ (i.e., found incidently during TURP)/vaginal bleeding/cervical carcinoma in situ/hematuria/status post urosepsis in past year.

4). Acute urinary retention/any GU carcinoma except as above.

This category is long on description as sex-specific pathology must be considered separately.

Urinary incontinence

This problem is more common in elderly women and merits a "2" if it occurs only occasionally or in response to a cough, etc. (stress incontinence). Daily incontinence requiring adult diapers or regular nighttime incontinence would merit a "3."

Vaginal bleeding and abnormal PAP smears

Vaginal bleeding of significant persistent nature merits a "3," a previous hysterectomy for bleeding or fibroid nonmalignant tumors merits a "1" (as the bleeding has been cured). One abnormal PAP smear can result from chronic vaginitis and is usually repeated, a definite abnormal smear merits a "2," cervical carcinoma in situ merits a "3," and any GU carcinoma merits a "4."

Urinary Infections

Recurrent UTI's (three or more in the past year) merits a "1" in women and at least a "3" in men. A current UTI merits a "2," a history of urosepsis in the past year a "3" and current urosepsis a "4."

Prostate problems

An enlarged prostate on physical exam merits a "1," with urinary hesitancy or frequency or status post Trans Urethral Prostatectomy (TURP) merits a "2," an incidental finding of carcinoma in situ found during a TURP merits a "3," and prostate carcinoma or bladder outlet obstruction generally merits a "4" (see "Rating Malignancies").

Urinary Diversion Procedure

Patients with ileal loops, indwelling catheters or nephrostomies would merit at least a "2."

MUSCULOSKELETAL/INTEGUMENT (muscles, bone and skin)

0). No problem.

1). Uses prn meds for arthritis or has mildly limited ADL's from joint pathology/excised non-melanotic skin cancers/skin infections requiring antibiotics within a year.

2). Daily antiarthritic meds or use of assistive devices or moderate limitation in ADL's/daily

meds for chronic skin conditions/melanoma without metastasis.

3). Severely impaired ADL's secondary to arthritis/requires steroids for arthritic condition/vertebral compression fractures from osteoporosis

4). Wheelchair bound/severe joint deformity or severely impaired usage/osteomyelitis/any bone or muscle carcinoma/metastatic melanoma.

Skin cancers

Malignant melanoma must be differentiated from other localized skin cancers that merit a "1." A melanoma diagnosis merits a "2," with metastasis, a "4."

Arthritis

Arthritis is most simply rated according to resulting disability or level of treatment required as outline above.

Osteoporosis, Osteomyelitis, and Cancer

Osteoporosis with compression fractures a "3." Osteomyelitis requires intensive inpatient treatment generally and merits a "4." Any muscle or joint cancer generally merits a "4" (see "Rating Malignancies").

NEUROLOGICAL (brain, spinal cord and nerves)

0). No problem.

1). Frequent headaches requiring prn meds without interference with daily activities/a history

of TIA phenomena (at least one).

2). Requires daily meds for chronic headaches or headaches that regularly interfere with daily activities/S/P CVA without significant residual/neurodegenerative disease (Parkinson's, MS, ALS, etc) - mild severity.

3). S/P CVA with mild residual dysfunction/any CNS neurosurgical procedure/ neurodegenerative disease - moderate severity.

4). S/P CVA with residual functional hemiparesis or aphasia/neurodegenerative disease-severe.

Headaches

Frequent Headaches requiring prn medication merits a "1," requiring daily anti-headache prophylaxis or intermittent severe headaches (e.g., migraines that require bed rest) merits a "2."

TIA's and Strokes

One transient ischemic attack (TIA) merits a "2." Cerebrovascular accidents (CVA) are rated as above according to the level of residual deficit or disability, for example, a patient who had hemiparesis and speech slurring but regained articulate speech and walks with only a slight remaining gait disturbance would be scored a "3,"

Vertigo, Dizziness and Lightheadedness

For consistency these are grouped under Ear, Nose and Throat although this category overlaps with neurology.

Neurodegenerative Disease

Parkinson's Disease, Multiple Sclerosis, and Amyotrophic Lateral Sclerosis (ALS) are three examples of a wide variety of degenerative neurological diseases. These illness are rated according to the severity of impairment at the time of rating, beginning at the "2" level. An example of a "3" would be a parkinsonian patient who shows residual bradykinesia and shuffling gait despite anti-parkinsonian medication, an example of a "4" would be patient unable to care for their own basic needs (bathing, toileting etc.) because of the severe progression of their illness.

Dementia (see "Psychiatric Conditions")

Although dementia can be considered a neurological as well as a psychiatric condition, for simplicity it should be grouped under "psychiatric conditions" as it's effect on functioning is primarily in this realm. For arbitrary clarity, Alzheimer's disease should be listed only under

psych. If the dementia stems from multi-infarct dementia or other neurological condition with concomitant neurological signs or symptoms, both "neurologic" and "psychiatric" categories should be endorsed at the appropriate level for severity.

ENDOCRINE/METABOLIC AND BREAST (includes diffuse infections and poisonings)

0). No problem.

1). Diabetes mellitus compensated with diet/obesity: BMI > 30*/requires thyroid hormone replacement.

2). Diabetes mellitus requiring insulin or oral agents/fibrocystic breast disease.

3). Any electrolyte disturbance requiring hospital treatment/morbid obesity BMI > 45*.

4). Brittle or poorly controlled diabetes mellitus or diabetic coma in the past year/requires adrenal hormone replacement/adrenal, thyroid or breast carcinoma.

Diabetes Mellitus

Recognized diabetes mellitus controlled with diet merits a "1," when insulin or oral agents are required, a "2" is merited; brittle or poorly controlled diabetes or a history of diabetic ketoacidosis or nonketotic hyperosmolar coma in the past year merits a "4," and an intermediate level of severity e.g., fairly well controlled blood sugars in the 300 mg/dl range with some retinopathy or peripheral neuropathy would merit a "3."

*See Body Mass Index (BMI) Tables in the Index

Hormone replacement /Electrolyte disturbance

Thyroid replacement in the elderly is common and should be rated a "1" if otherwise uncomplicated. Potassium supplementation for patients taking diuretics is routine and would not merit a rating unless the serum potassium level was severely low. Abnormalities of other electrolytes can be serious conditions, for simplicity, we have designated those conditions that require hospital treatment to merit at least a "3." Adrenal hormone replacement merits a "3." Other endocrine conditions require judgement of relative severity according to the level of morbidity caused by the condition.

*Obesity

Obesity is considered a risk for a variety of conditions and is rated with guidelines of relative severity using the Body Mass Index (BMI)[4] as the current standard for measuring weight for a given height. Note the sex specific charts or nomograms provided in the index of this manual.

Breast Pathology

For lack of a better place, breast problems were included with endocrine/metabolic even though the breast is technically and exocrine gland. Listing it near the end of this manual is not meant to imply any relative unimportance. Fibrocystic breast disease merits a "2," breast cancer generally merits a "4" (see "Rating Malignancies").

PSYCHIATRIC ILLNESS

0). No psychiatric problem or history thereof.

1). Minor psychiatric condition or history thereof. Specifically: previous outpatient mental health treatment during a crisis/outpatient treatment for depression > 10 years ago/current usage of minor tranquilizers for episodic anxiety (occasional usage)/mild early dementia (MMS > 25 < 28).

2). A history of Major Depression (by DSM III-R criteria) within the past 10 years (treated or untreated)/mild dementia (MMS 20-25)/any previous psychiatric hospitalization/any psychotic episode substance abuse history > 10 years ago.

3). Currently meets DSM III-R criteria for major depression or two or more episodes of major depression in the past 10 years/moderate dementia (MMS 15-20)/current usage of daily antianxiety medication/currently meets DSM III-R criteria for substance abuse or dependance/requires daily antipsychotic medication.

4). Current mental illness requiring psychiatric hospitalization, institutionalization, or intensive outpatient management, e.g., patients with severe or suicidal depression, acute psychosis or psychotic decompensation, severe agitation from dementia, severe substance abuse etc./Severe dementia (MMS < 15).

Rating psychiatric illness in keeping with the stated principles of this scale may seem like a daunting task particularly for raters with little mental health experience. Psychiatric consultation may be required for clarification. Thorough mental health histories and mental status exams are

rarely obtained in the course of medical/surgical evaluations, therefore, retrospective rating from charts may show an inadequate database to properly rate all but the most obvious mental health impairments. Nevertheless, the following organizing threads are intended to guide the rater to reasonable assessments. It is assumed the rater has a working familiarity with DSM III-R[3] and the Mini-Mental Status Exam (Folstein et al.[2], 1975).

For the elderly, dementia and depression are the most common psychiatric diagnoses and are a focus of the rating categories according to severity and time period since the last episode. Common sense dictates that those patients with more severe illness or more frequent episodes or who require more intensive intervention merit a higher severity rating.

The outlined criteria follow patterns of increasing severity for five major categories of illness: dementia, depression, anxiety, psychosis, and substance abuse. These representative categories were chosen as generally representative of the larger group of significant mental illnesses.

Rating strategies for a myriad of other disorders would overwhelm the scope of this scale. As in the medical categories, other psychiatric disorders must be judged by the rater as meeting a similar level of impairment as the listed examples.

Patients with **Personality disorders** are defined broadly as having chronic difficulties maintaining satisfying interpersonal relationships. These disorders may produce severe impairments in some patients and should be rated accordingly; e.g., suicidal potential requires inquiry into the lethality and intent of any previous suicide attempts and may merit a "3" or "4." Psychiatric consultation is recommended for the inexperienced rater. **Delirium** (see DSM III-R definition) is assumed to have an underlying organic etiology and should be scored both

according to the level of psychiatric impairment and in the appropriate medical category, e.g., delirium secondary to hyponatremia requiring hospitalization would merit a "4" for "Psych" and at least a "3" for "Metabolic" (depending on severity).

Psychosomatic disorders are often difficult to differentiate from "pure" medical disorders and judgement is ultimately required to endorse a psychiatric rating if it best fits the clinical picture.

(1) Linn BS, Linn MW, Gurel L. Cumulative illness rating scale. J Amer Ger Soc 1968;16:622-626.

(2) Folstein MF, Folstein SE, McHugh PR. Mini-mental state: A practical method for grading the cognitive state of patients for the clinician. J Psych Res 1975;12:189-198.

(3) American Psychiatric Association: Diagnostic and statistical manual of mental disorders, 3rd Edition - Revised. Washington, D.C., 1987.

(4) Bray, GA, et al. Evalaution of the obese patient. I. An algorithm. JAMA 1976;235:1487.

Scoring Sheet

CUMULATIVE ILLNESS RATING SCALE FOR GERIATRICS (CIRS-G)

Miller, Paradis, and Reynolds 1991

PATIENT_____**AGE**_____

RATER_____**DATE**_____

Instructions: Please refer to the CIRS-G Manual. Write brief descriptions of the medical problem(s) that justified the endorsed score on the line following each item. (Use the reverse side for more writing space).

RATING STRATEGY

0 - No Problem
1 - Current mild problem or past significant problem
2 - Moderate disability or morbidity/requires "first line" therapy
3 - Severe/constant significant disability/"uncontrollable" chronic problems
4 - Extremely Severe/immediate treatment required/end organ failure/severe impairment in function

	SCORE
HEART	____
VASCULAR	____
HEMATOPOIETIC	____
RESPIRATORY	____
EYES, EARS, NOSE AND THROAT AND LARYNX	____
UPPER GI	____
LOWER GI	____
LIVER	____
RENAL	____
GENITOURINARY	____
MUSCULOSKELETAL/INTEGUMENT	____
NEUROLOGICAL	____
ENDOCRINE/METABOLIC AND BREAST	____
PSYCHIATRIC ILLNESS	____
TOTAL NUMBER CATEGORIES ENDORSED	____
TOTAL SCORE	____
Severity Index: (total score/total number of categories endorsed)	____
Number of categories at level 3 severity	____
Number of categories at level 4 severity	____