State of Iowa Department of Corrections
Policy and Procedures

Policy Number: HSP-605
Applicability: DOC
Policy Code: Public Access
Iowa Code Reference: N/A
Chapter 6: Health Services
Sub Chapter: Acute/Specialty Services
Related DOC Policies: HSP-801, HSP-908
Administrative Code Reference: N/A
Subject: Routine Monitoring of Medical Conditions
ACA Standards: 5-ACI-6A-07, 5-ACI-6A-18
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Effective Date: March 2022
Authority:

1. Purpose

To identify and monitor medical conditions within the Iowa Department of Corrections (IDOC), to decrease the frequency and severity of symptoms, prevent disease progression, complications, and foster improved function.

2. Policy

It is the policy of the IDOC to use evidence based medical diagnosis monitoring guidelines to reduce morbidity and mortality within the patient populations.

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H. HIV Disease - See IDOC Policy HSP-908, *HIV Infection*

I. Hepatitis C – See IDOC Policy HSP-912, *Hepatitis C Management*

J. Mental Health – See Series 700 of the IDOC Policy

3. Definitions

A. Medical Condition is an illness or condition that affects an individual's well-being for an extended period of time, usually at least six months, and generally is not curable, but can be managed.

B. See Policy AD-GA-16 for additional definitions.

4. Procedure

A. Monitoring of Medical Conditions

1. The problem list in the patient's health record identifies current health problems. Each unresolved current problem identified on the problem list will have written treatment plans which ensure an ongoing review of the condition(s).

2. Current health conditions/physical impairments are to be identified as part of each patient's initial health screening activities, which include a physical examination.

3. The intake screening nurse is to document any of these clinically determined health conditions or physical impairments on the initial nursing health screening form in Medical ICON. The examining medical practitioner is to document similar findings in the physical examination.

4. Medical practitioners enter ICD-10 codes for all current health conditions and physical impairments into the electronic medical record of each relevant patient.

5. Patients with current diseases benefit from regular clinic visits for evaluation and management by health care providers. Each patient with a current medical diagnosis, as listed in this policy, will have a treatment plan that is proactive structured around this policy and have a teamwork approach designed to meet desired goals.

6. Clear definitions of disease control have been developed for each medical condition listed in this policy. These guidelines are based on outcome data and controlled clinical trials, which have demonstrated that when patients' health is aggressively managed, there are significant reductions in morbidity and mortality.

7. The definition of good control is based on the values identified as being shown to decrease the excess morbidity and mortality attached to the specific disease. Good control, fair control and poor control for each disease are benchmarks that are arbitrarily chosen to help the clinician keep in mind treatment goals, as well as reduction in complications related to the degree to which the disease is controlled.

8. Under the plan section of the practitioners encounter in the EMR, there are prompts for recommended tests and appropriate time frames for follow-up visits. These are recommendations and practitioners are encouraged to use their clinical judgment to develop an individual treatment plan.

9. Immunizations are recommended per CDC guidelines.

10. IDOC Form HSF-605D, *Activity/Sleep Checks*, is a tool that may be used by a staff member to monitor a patient's sleep pattern and/or activity level.

B. Hypertension (HTN)

1. Diagnosis - A diagnosis of hypertension should be made based on the following:

    a. Use of >2 BP readings on >2 occasions meeting the threshold of >140>90mm Hg

    b. Patient should be seated and relaxed for >5 minutes with arm rested on support at level of the heart, back supported, and feet flat on the floor.

    c. Use proper cuff size, remove clothing from site of cuff placement, and patient should avoid talking at time of the measurement.

2. Initial Visit - the following should be obtained once a diagnosis of hypertension has been made:

    a. Basic Metabolic Panel (BMP) with fasting glucose

    b. Lipids

    c. UA

    d. EKG

    e. Additional testing may be considered based on clinical evaluation.

3. Management

    a. Lifestyle modification should be considered in all patients with a diagnosis of hypertension.

        1) Review benefits of weight loss if BMI $\geq$25

        2) Recommend decreasing sodium intake

        3) Recommend increasing fruits, vegetables, and reducing saturated fats (DASH Diet)

    b. Medications - First line options include the following:

        1) Thiazide diuretic (Hydrochlorothiazide)

        2) Angiotensin Converting Enzyme (ACE) Inhibitor (Lisinopril)

        3) Angiotensin Receptor Blocker (Losartan)

        4) Calcium Channel Blocker (Amlodipine)

        Note: Initial treatment with ACE inhibitor or ARB often recommended for patients who also have a diagnosis of diabetes, chronic kidney disease, or coronary artery disease.

    c. Lab Monitoring

1) BMP approximately 2 weeks after starting a new antihypertensive medication.

2) BMP every 6 months is appropriate for patients on antihypertensive medications.

4. Follow Up

A medical practitioner encounter is to be scheduled every 6 months

- Patients with a blood pressure >140/90 may require more frequent monitoring by a medical practitioner.

5. Nursing Routine Monitoring

a. Patients admitted to IDOC who are on antihypertensive medications at time of intake should have BP monitored once weekly for 3 weeks and scheduled for a medical practitioner encounter.

b. Vitals and weight check should be obtained monthly in patients with diagnosis of hypertension.

c. If a routine scheduled blood pressure (BP) is >160 systolic or >100 diastolic then recheck blood pressure in 20 minutes using techniques as outlined above (See B.1.b. and B.1.c.).

1) If blood pressure remains >160 systolic or >100 diastolic on recheck, then check BP daily for 3 days.

2) If BP is still >160 systolic or >100 diastolic, then alert medical practitioner and schedule patient for a medical encounter within the next 2 weeks.

d. If BP of >180 systolic or >110 diastolic, then recheck BP in 20 minutes using techniques as outlined above (See B.1.b. and B.1.c.).

If BP of >180 systolic or >110 diastolic, then alert a medical practitioner.

e. A medical practitioner encounter is to be scheduled every 6 months in patients with a diagnosis of hypertension.

Patients with a blood pressure >140/90 may require more frequent monitoring by a medical practitioner and follow up can be determined on a case-by-case basis.

C. Diabetes (DM)

1. Diagnosis - A diagnosis of diabetes should be made based on any of the following:

    a. HgbA1c > 6.5%*

    b. Fasting Plasma Glucose >126mg/dL (fasting defined as no caloric intake for >8 hours) *

    c. Random plasma glucose >200mg/dL with symptoms of hyperglycemia or hyperglycemic crisis.

    d. 2-hour plasma glucose >200mg/dL during oral glucose tolerance test.

    *Diagnosis of diabetes in asymptomatic person should not be based on single abnormal plasma glucose of HbA1c.

2. Initial Visit (at time of diagnosis)

    a. Initial labs if not performed within the last year:

        1) Lipids

        2) CMP

        3) Urine microalbumin or albumin to creatinine ratio

        4) TSH in patients with Type I DM

    b. Evaluations in addition to general physical exam, if not performed within the last year.

        1) Comprehensive Foot Exam

        2) Refer to eye specialist for a dilated and comprehensive eye exam.

3. Management

   a. Glycemic Goals:

      1) HbA1c <7% for most non-pregnant adults

      2) HbA1c <8% may be appropriate for certain patient populations such as:

         a) History of severe hypoglycemia

         b) Limited life expectancy

         c) Advanced microvascular or macrovascular disease

         d) Extensive comorbidities

         e) Long-standing diabetes for whom goal is difficult to achieve despite appropriate monitoring and management including use of insulin therapy.

   b. Lifestyle modifications should be considered in all patients with a diagnosis of Type 2 Diabetes

      1) Review benefits of weight loss if BMI >25

      2) Dietary Modifications:

         a) See HSP-801, *Modified Diets* for details

         b) Consider Dietary consultation based on institution availability

         c) Emphasize inclusion of fruits, vegetables, whole grains, legumes, and avoidance of sugar sweetened beverages, snacks and foods

      3) In patients who can tolerate physical activity, emphasize moderate level aerobic activity >150 minutes per week and resistance training 2-3 days per week.

c. Medication

1) Type 2 Diabetes Mellitus

a) Metformin is the preferred initial drug at diagnosis for adults unless contraindicated or not tolerated

b) Addition of one or two oral medications may be considered:

1. Thiazolidinedione (Contraindicated in heart failure Class III or IV)

2. Sulfonylurea

3. SGLT2 Inhibitor (See indications below)

- Established ASCVD
- High risk for ASCVD
- Heart failure
- CKD

c) Consider Insulin therapy if any of the following:

1. HbA1c >10%

2. Blood Glucose >300mg/dL

3. Symptoms of hyperglycemia (polyuria or polydipsia) are present

4. Catabolic features

5. Diagnosis of Type 1 Diabetes is a possibility

6. Glycemic goals not achieved with use of oral therapy

2) Type 1 Diabetes Mellitus

a) All patients with Type 1 Diabetes require insulin

b) Patients will require both basal and prandial insulin

d. Management of Comorbidities

1) Statins are recommended for most adults age 40-75 years.

2) Angiotensin-converting enzyme (ACE) inhibitors or Angiotensin Receptor Blocker (ARB) recommended for patients with hypertension and severe to moderate albuminuria or known atherosclerotic cardiovascular disease.

3) Aspirin therapy (81-162mg/day) recommended for secondary prevention in patients with a history of atherosclerotic cardiovascular disease and may be considered for primary prevention in those with increased cardiovascular disease risk.

4) Annual referral to eye specialist for fundoscopic examination to assess retinopathy and visual acuity.

5) Annual foot examination

a) Visual inspection

b) Palpate pulses

c) Check sensation

e. Lab Monitoring

1) HbA1c every 3 months

2) CMP annually

3) Lipids annually

4) Urine microalbumin or microalbumin to creatinine ratio annually

5) TSH annually for Type 1 DM

f. Vaccinations

1) Influenza vaccination yearly

2) See *Iowa Department of Corrections Clinical Guidelines for Immunizations* for further recommendations

3) Other vaccinations provided according to CDC age related guidelines

4. Follow Up

A medical practitioner encounter;

a. If HgbA1c >7, follow up every 3 months

b. If HgbA1c <7, follow up every 6 months

c. More frequent visits may be scheduled at practitioner's discretion

5. Nursing Routine Monitoring and Management

a. Scheduling medical practitioner encounter:

1) If HgbA1c >7, follow up every 3 months

2) If HgbA1c <7, follow up every 6 months

3) More frequent visits may be scheduled at practitioner's discretion

b. Vitals and weights should be obtained monthly

c. Glucose monitoring for Type 1 and Type 2 DM:

1) **Not taking insulin:** regular blood glucose monitoring is not required

2) **Basal insulin only:** obtain daily AM fasting and PM blood glucose monitoring

3) **Basal insulin and meal time insulin:** obtain daily AM fasting, PM blood glucose, and preprandial blood glucose before meals requiring insulin

d. When to notify practitioner:

If a finger stick blood glucose is >400mg/dL for two consecutive readings, notify medical practitioner

e. Diet: See **HSP-801**, *Modified Diets* for details.

f. Vaccinations:

1) Influenza vaccination yearly

2) See *Iowa Department of Corrections clinical Guidelines for Immunizations* for further recommendations

6. Hypoglycemia in Diabetes

Classification of Hypoglycemia:

a. Plasma glucose <70mg/dL to >54mg/dL: Hypoglycemia Alert

1) Patient may not require intervention at this point, but should be educated that they could develop significant hypoglycemia.

2) Therapies that may be considered include:

a) Fast-acting oral carbohydrates (glucose containing food or drinks such as 4 ounces of juice)

b) Educate patient on avoiding activities that could lead to further decreased glucose (e.g. exercise)

c) Adjustment in glucose-lowering therapy

b. Plasma glucose <54mg/dL: Serious Hypoglycemia

1) Patients require intervention to ensure glucose improves.

2) Therapy options in conscious patient:

   a) Fast-acting oral carbohydrate (glucose containing food or drinks such as 4 ounces of juice)

   b) Glucose tablets or gel 15-20g orally

3) Therapy options in patient unconscious or unable to take glucose orally include:

   Glucagon 1 mg IM x 2. Repeat dose in 15 minutes if patient is not conscious and call for EMS for transport

4) Follow up:

   a) Repeat blood glucose after 15 minutes and repeat treatment if hypoglycemia persists.

   b) Notify available provider and schedule physician encounter for follow up to evaluate treatment regimen.

D. Convulsive Disorders

1. Evaluation

   a. First Seizure - Routine evaluation of adults with an unprovoked first seizure should include:

      1) Brain imagine (CT or MRI) and an electroencephalogram (EEG).

      2) Further investigations should be guided by the clinical history and presentation.

   b. Patients with a history of seizure disorder:

      1) Prior records should be obtained including prior brain imaging (CT or MRI), EEG, and any additional neurological assessments that would support the diagnosis.

2) Patients with seizure of recent onset (one year or less), in which prior records cannot be obtained or are not available, require Neurological consultation for further evaluation.

2. Management

    a. Serum levels of antiepileptic medications should be monitored as clinically indicated.

    b. Work Class Restriction: These may be modified once patient is considered stable and seizure free for 12 months.

        1) Lower bunk

        2) No work with dangerous machinery

        3) No climbing ladders

        4) No weight lifting

        5) No contact sports

    c. LAN may be used during evaluation period until a diagnosis can be established.

3. Follow Up

    a. A medical practitioner encounter should be scheduled every 6 months.

    b. More frequent encounters may be scheduled at practitioner's discretion.

E. Asthma

1. Diagnosis - A diagnosis of asthma should be made based on the following:

a. A detailed history and physical to identify characteristics consistent with asthma such as symptoms of wheezing, shortness of breath, chest tightness, and cough that vary over time and in intensity.

   Symptom characteristics often include:

   1) Worsening at night and waking

   2) Triggered by exercise, laughter, allergens, or cold air

   3) Worsen with viral infections

b. Prior records of pulmonary function testing if available (e.g. spirometry or peak flow).

c. Consider additional spirometry or peak flow testing as clinically indicated.

2. Management

   a. Patient education including:

      1) Educating patients on their diagnosis and recognition of symptoms

      2) Recognizing and mitigating avoidable triggers

      3) Ensuring proper inhaler technique

      4) Ensuring understanding of short and long-term therapies

      5) Identifying and improving barriers that may prevent patients from taking medications

   b. Peak flow testing obtained at baseline and every 6 months

   c. Medication management will be individualized based on factors such as asthma severity, patient preference, and/or availability of therapies

   d. Vaccinations

1) Influenza vaccination yearly

2) See Iowa *Department of Corrections Clinical Guidelines for Immunizations* for further recommendations

3. Follow Up

    a. Medical practitioner encounters every 6 months

    b. More frequent visits may be scheduled at practitioner's discretion

4. Nursing Monitoring

    a. Scheduling medical practitioner encounter every 6 months

    b. Peak flow testing every 6 months

    c. More frequent encounters or peak flow testing may be scheduled as indicated by practitioner

F. Chronic Obstructive Pulmonary Disease (COPD)

1. Diagnosis – A diagnosis of COPD should be considered based on the following:

    a. A detailed history and physical exam to identify characteristics consistent with COPD such as dyspnea, chronic cough or sputum production, and history of exposure to risk factors for COPD such as tobacco smoke or occupational exposures

    b. Prior records of pulmonary function testing if available

    c. Consider additional pulmonary function testing as clinically indicated

2. Management

    a. Patient education including:

        1) Avoiding exposure to risk factors and continue to avoid smoke inhalation/smoking

        2) Ensure proper inhaler technique

        3) Encourage physical activity as tolerated

    b. Peak flow testing obtained at baseline and every 6 months

    c. Medication management will be individualized based on factors such as COPD severity, patient preference, and/or availability of therapies

    d. Vaccinations

        1) Influenza vaccination yearly

        2) See *Iowa Department of Corrections Clinical Guidelines for Immunizations* for further recommendations

3. Follow Up

    a. Medical practitioner encounters every 6 months

    b. More frequent visits may be scheduled at practitioner's discretion

4. Nursing Monitoring

    a. Scheduling medical practitioner encounter every 6 months

    b. Peak flow testing every 6 months

    c. More frequent encounters or peak flow testing may be scheduled as indicated by practitioner

G. Hyperlipidemia

1. Patients with a diagnosis of Hyperlipidemia should have baseline studies

    a. Fasting Lipid profile

    b. CMP

2. Lipids yearly if stable

3. Consider dietary modifications and physical activity as clinically indicated

4. Physician encounter every 12 months

H. HIV Disease - See IDOC Policy HSP-908, *HIV Infection*.

I. Hepatitis C – See IDOC Policy HSP-912, *Hepatitis C Management*.

J. Mental Health – See Series 700 of the IDOC Policy