American Association of Heart Failure Nurses Content Outline	Items
I. Assessment	**32**
A. Review Patient History	*10*
1. Review patient record for comorbid conditions or heart failure risk factors	
a. hypertension	
b. diabetes	
c. hyperlipedemia	
d. obesity	
e. smoking	
f. coronary heart disease	
g. valvular heart disease	
h. exposure to cardiac toxins (e.g., alcohol, cocaine)	
i. sleep-disordered breathing	
j. sustained arrhythmias	
k. anemia	
l. non-cardiac related conditions that could impact assessment, treatment and prognosis (e.g., COPD, depression, renal disease)	
2. Obtain patient information	
a. family history	
b. socio-economic history (e.g., social support, financial support, work, marital status)	
c. current medications and medication allergies	
d. etiology of heart failure	
e. duration of heart failure	
f. presence of implantable cardiac device (e.g., CRT, ICD, pacemaker)	
g. adherence to the plan of care (e.g., barriers, self-efficacy, knowledge of heart failure and management)	
B. Ask patient about new or worsening signs and symptoms of heart failure	*7*
1. breathing problems (e.g., shortness of breath, orthopnea, paroxysmal nocturnal dyspnea, wheezing)	
2. effort intolerance (e.g., general fatigue, activity intolerance, leg fatigue)	
3. cough (e.g., nocturnal, recumbent)	
4. fluid overload (e.g., pedal edema, ascites, scrotal edema, nocturia)	
5. gastrointestinal problems (e.g., abdominal discomfort, nausea, vomiting, early satiety, change in bowel habits, diarrhea)	
6. mental status changes (e.g., confusion, delirium)	
7. palpitations	
8. dizziness, lightheadedness, or syncope	
9. angina or anginal equivalents	
10. sleep disturbance (e.g, insomnia, snoring, early arousal)	
11. changes in urine output (e.g., quantity, color)	
12. dry mouth or thirst	
13. skin alterations (e.g., color, bruising, temperature, mottling)	

American Association of Heart Failure Nurses Content Outline	Items
C. Perform physical assessment	*8*
1. Assess signs of change in fluid level status/fluid overload	
a. heart sounds (e.g., S3, murmurs)	
b. elevated jugular venous pressure/distension	
c. lung sounds (e.g., crackles, rales, wheezing)	
d. ascites	
e. edema (pitting or non-pitting)	
f. hepatojugular reflux	
g. weight or change in weight from last assessment	
2. Assess signs of change in perfusion status/poor perfusion	
a. heart sounds (e.g., audibly distant S2, laterally displaced apical beat)	
b. cool, mottled skin	
c. diminished pulse amplitude	
d. orthostatic blood pressure changes	
e. narrowed pulse pressure/pulsus alternans	
f. altered mentation/cognitive dysfunction	
g. abnormal pulse or rhythm (e.g., tachycardia, irregular, bradycardia)	
D. Review Lab Test Results	*4*
1. electrolytes (sodium, potassium, magnesium)	
2. renal function (blood urea nitrogen, creatinine, glomerular filtration rate)	
3. lipid profile	
4. hemoglobin/hematocrit	
5. liver function tests (e.g., transaminases, albumin)	
6. thyroid function	
7. BNP levels/NT-proBNP levels	
E. Review Cardiac/Pulmonary Test Results	*3*
1. ejection fraction (from echocardiogram, cardiac catheterization, nuclear study, or CT)	
2. ECG abnormalities (e.g., QRS width, rate and rhythm)	
3. chest x-ray	
4. cardiac catheterization	
5. cardiac implantable device diagnostics (e.g., pacemaker, ICD)	
II. Planning	**7**
A. Determine Patient's Clinical Status	*2*
1. ACC/AHA stage	
2. New York Heart Association (NYHA) functional class	
B. Integrate assessment findings into plan of care	*5*
1. When determining care plan objectives, consider	
a. patient acuity	
b. care setting	
c. clinical status (e.g., co-morbidities and prognosis)	
d. patient preferences	

American Association of Heart Failure Nurses Content Outline	Items
e. etiology of heart failure	
f. psychosocial and economic factors	
2. Prioritize implementation of the plan of care based on assessment findings and clinical status (e.g., history, signs and symptoms, test results, pathophysiology)	
III. Implementation	**41**
A. Implement pharmacologic treatment	*11*
1. Administer pharmacologic agents for systolic dysfunction	
a. ACE inhibitors, angiotensin receptor blockers (ARBs), or oral nitrates and hydralazine	
b. Guideline-recommended beta-adrenergic receptor blockers	
c. aldosterone antagonists	
d. digoxin	
2. Administer pharmacologic agents recommended for patients with HF and preserved systolic function	
a. ACE inhibitors, angiotensin receptor blockers (ARBs), or oral nitrates and hydralazine	
b. beta-adrenergic receptor blockers	
c. calcium channel blockers	
3. Administer diuretic agents to reduce fluid overload and/or improve blood pressure	
a. loop of Henle agents	
b. thiazide diuretics (distal tubule)	
c. thiazide-like agents (proximal and distal tubule agents)	
4. Administer other frequently-prescribed pharmacologic agents	
a. electrolyte supplements	
b. statins	
c. anticoagulants	
d. antiplatelets	
e. antiarrhythmic agents	
f. nitrates	
5. Assess serum electrolytes and drug levels	
6. Monitor patient for medication therapeutic effects, interactions, and side effects	
7. Recommend pneumococcal vaccine and annual influenza vaccination	
B. Implement non-pharmacologic strategies	*25*
1. Develop a teaching plan based on patient factors that may influence education and management	
a. current knowledge of heart failure	
b. barriers/readiness to change	
c. literacy	
d. health illiteracy	
e. cognitive status	
f. psychological state	
g. self-efficacy for self-care	

American Association of Heart Failure Nurses Content Outline	Items
h. cultural beliefs	
i. access to social and financial resources	
j. preferred methods for learning	
k. advance directives	
l. end-of-life care	
m. quality-of-life preferences	
2. Develop an individualized education plan for patients/caregivers, including	
a. definition and cause of patient's heart failure	
b. recognition and management of escalating symptoms	
c. prognosis	
d. indications, use, and adverse effects of heart failure medications	
e. risk factor modifications (e.g., blood pressure, body mass index)	
f. diet recommendations (e.g., sodium intake, label reading, eating out)	
g. fluid management (e.g., daily weight monitoring, fluid restriction)	
h. activity and exercise recommendations; including cardiac rehabilitation	
i. treatment adherence	
j. follow-up recommendations (e.g., next appointment, weight changes)	
k. avoidance of substances that may worsen heart failure (e.g., NSAIDs, ephedrine)	
3. Determine appropriate learning methods, according to patient/caregiver preference (e.g., one-on-one, group, internet, written materials, video materials)	
4. Screen patients for eligibility for implanted cardiac rhythm management devices	
5. Screen patients for advanced therapies (e.g., transplant, ventricular assist device (VAD))	
6. Educate patient on self-care	
a. Integrate interactive processes, such as skill-building and demonstration, when assessing learning comprehension	
b. Continually re-assess learning comprehension and patient's stage of illness in order to adjust and implement education/counseling plan on an ongoing basis	
7. Provide a physical activity/exercise plan	
8. Determine eligibility for cardiac rehabilitation	
9. Provide dietary recommendations (e.g., low-sodium, low-cholesterol).	
10. Provide fluid management recommendations (e.g., daily weight assessment, weight monitoring; fluid restriction, as ordered)	
11. Guide patient in acquiring/using self-care skills	
12. Screen patient for the following	
a. chronic pain	
b. sleep disorders	
c. depression	
d. anemia	
e. thyroid dysfunction	

American Association of Heart Failure Nurses Content Outline	Items
f. gout	
g. other frequently-occurring comorbid conditions (e.g., COPD, atrial fibrillation, renal dysfunction)	
13. Guide patient on stress-reduction techniques	
C. Recommend patient referrals	*5*
1. heart failure disease management program	
2. social work	
3. home care	
4. nutritionist/dietician	
5. physical/occupational therapy	
6. cardiac specialist (e.g., electrophysiologist, cardiac surgery, interventional cardiologist)	
7. non-cardiac specialist (e.g., endocrinologist, psychiatrist, pulmonologist)	
8. sleep specialist	
9. hospice/palliative care	
IV. Evaluation	**12**
A. Evaluate effectiveness of patient therapies	*8*
1. Pharmacologic interventions (e.g., diuretics, beta blockers, ACE inhibitors)	
a. class	
b. dose	
c. effectiveness	
d. interactions	
e. adherence to drug plan	
2. Non-pharmacologic interventions	
a. outpatient monitoring (e.g., home monitoring, telemonitoring, device-diagnostic monitoring)	
b. self-care (e.g., exercise, diet, signs/symptoms of worsening condition, seeking follow-up)	
3. consultation/referral (e.g., home health)	
4. changes in NYHA Class and ACC/AHA stage	
5. palliative/end-of-life/advance directives	
6. psycho/social patient outcomes (e.g., mood, cognitive functioning, quality of life)	
B. Evaluate effectiveness of teaching	*4*
1. patient (and family) education	
2. understanding of and adherence with dietary sodium restriction	
3. understanding of and adherence with medical regimen	
4. understanding of and adherence with fluid management plan	
5. adherence to exercise plan	
V. Professional Issues	**8**
A. Demonstrate professionalism	*3*
1. Provide rationale for the role of certification in heart failure nursing	

American Association of Heart Failure Nurses Content Outline	Items
2. Participate in continuing education related to heart failure themes (e.g., attend conferences, in-services, webinars; read journal articles)	
3. Follow legal parameters for nursing care of the heart failure patient (e.g., HIPAA, consent, negligence, malpractice)	
4. Apply ethical principles in heart failure practice (e.g., autonomy, justice, beneficence, non-malificence)	
5. Advocate for family/caregiver awareness and involvement in care planning and delivery	
B. Maintain and improve performance	*5*
1. Participate in quality improvement activities	
2. Provide interdisciplinary/collaborative care	
3. Use a collaborative framework in action planning	
4. Identify disparities and gaps in clinical management of heart failure patients	
5. Incorporate evidence-based practices and professional guideline recommendations when managing patients with heart failure	
6. Utilize professional communication techniques with patients and colleagues	
7. Articulate and communicate clinical issues accurately and completely	
Total	**100**

Numbers in **boldface** are definite requirements for a test form. Numbers in *italics* are targets – they may vary slightly across test forms.
Each examination form will include two 10-item pretest sets (i.e., a candidate responds to 100 scored and 10 unscored items).