

CHRONIC COMORBID CONDITIONS

Background & Significance

Individuals are living long-term with chronic conditions that do not live in isolation, but that exist in comorbid clusters. For example, in a large national sample of Medicare beneficiaries, 86% of patients with heart failure had two or more non-cardiac comorbidities and more than 25% had six or more.¹ Diabetes, cancer, cardiovascular disease, HIV/AIDS, autoimmune disorders, and chronic pulmonary conditions are becoming more prevalent in combinations. Commonly reported comorbid conditions include diabetes, rheumatoid arthritis, stroke, asthma or COPD, and renal disease.² Diabetes, cancer, and cardiovascular disease are becoming more prevalent in dyads or triads of all three together. Comorbid conditions are complex and often bidirectional with one another. For example,

- Diabetes places the cardiac patients at risk for increased morbidity, mortality, and health care costs.^{3,4}
- Cancer can confound cardiovascular disease and diabetes.
- Patients with cancer are susceptible to malglycemic states (hyperglycemia, hypoglycemia, or increased glycemic variability)⁵ due to the malignancies and related treatments and the altered metabolism in patients with cancer can compound or contribute to cardiovascular involvement.
- Diabetes is also now a known risk factor for cancer⁶ and is an established risk factor for cardiovascular disease.⁷

There is a current lack of understanding regarding the interplay of these conditions coexisting with one another and how to optimize treatment and management focal points in order to ensure the best quality of life for these individuals.

References

- 1 Braunstein JB, Anderson GF, Gerstenblith G, Weller W, Niefeld M, Herbert R, et al. Noncardiac comorbidity increases preventable hospitalizations and mortality among Medicare beneficiaries with chronic heart failure. *J Am Coll Cardiol* 2003;42:1226-1233.
- 2 Lesman-Leegte I, Jaarsma T, Coyne JC, Hillege HL, Van Veldhuisen DJ, Sanderman R. Quality of life and depressive symptoms in the elderly: a comparison between patients with heart failure and age- and gender-matched community controls. *J Card Fail* 2009;15:17-23.
- 3 Ekundayo OJ, Muchimba M, Aban IB, Ritchie C, Campbell RC, Ahmed A. Multimorbidity due to diabetes mellitus and chronic kidney disease and outcomes in chronic heart failure. *Am J Cardiol* 2009;103:88-92.
- 4 Krumholz HM, Currie PM, Riegel B, et al. A taxonomy for disease management: a scientific statement from the American Heart Association Disease Management Taxonomy Writing Group. *Circulation* 2006;114:1432-45.
- 5 Hammer MJ, Casper C, Gooley TA, O'Donnell PV, Boeckh M, Hirsch IB. The contribution of malglycemia to mortality among allogeneic hematopoietic cell transplant recipients. *Biol Blood Marrow Transplant* 2009;15:344-51.
- 6 Giovannucci E, Harlan DM, Archer MC, et al. Diabetes and cancer: a consensus report. *Diabetes Care* 2010;33:1674-85.
- 7 Writing Group M, Lloyd-Jones D, Adams RJ, et al. Heart disease and stroke statistics--2010 update: a report from the American Heart Association. *Circulation*;121:e46-e215.

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Purpose

The Chronic Comorbid Conditions Research Interest Group has been formed to address the issues of managing patients with chronic comorbidities through

- 1) Investigation of common comorbid clusters
- 2) Evaluation of management strategies for patients with chronic comorbidities
- 3) Establishment of evidence-based practice guidelines for patients with various comorbidities & disseminate this information

Goals

- 1.) Provide a support network for ENRS members who manage patients with chronic comorbid conditions
- 2.) Conduct multi-site research studies among our ENRS affiliate institutions to
 - a. Understand the establishment of chronic comorbid conditions (e.g. what common underlying factors contribute to each condition?)
 - b. Evaluate how patients are managing their conditions and associated symptoms (e.g. do they have a different health care provider for each condition giving them different and even conflicting information on management?)
 - c. Establish and implement interventions for optimizing disease and symptom management
- 3.) Establish and maintain a chronic illness registry for data mining

Actions

- 1.) Identify instruments to use across conditions / do psychometric testing on instruments not yet established for specific conditions / comorbidities
 - a. Charlson Comorbidity Index for quantifying comorbidity numbers and categorizing
 - b. Depression instruments
 - c. Qualitative questions
- 2.) Discuss specific short-term studies for early implementation
- 3.) Discuss long-term studies / long-range plans

Co-chairs

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