## Cassie Short Summary Table Capstone 2013

Author, Year, Journal, Title	Purpose of Study, Study Design	N= Number of Subjects, Type of Subject	Methods	Outcome Measures	Results	Analysis/ Conclusions	Clinical Relevance
	0	diagnosed COPD n=14,828; With physician-	Multi-year analytic sample joining five NHANES waves (1999-2000, 2001- 2002, 2003-3004, 2005- 2006, 2007-2008); Sample represents 100 million people, 10 million with COPD	and Nutrition Examination Survey (NHANES) from 1999-2008;	(12.1%), CHD (12.7%), HTN (60.4%), hypercholesterolemia (47.6%), CVA (8.9%), cancer (16.5%), DM (16.3%), osteoporosis	need to take into account a complex spectrum of comorbidities. Identified the most common conditions in a nationally- representative set of COPD patients. Found that 96.4% of adults 45 and older with COPD have at least 1 condition that can	Research and clinical practice guidelines need to address COPD within the context of comorbidity. For example, polypharmacy reactions (beta- blockers for cardiovascular disease may worsen lung function; bronchodilators for COPD may worsen tachyarrhythmias). Guidance fi potential interactions, and recommendations would be useful to clinicians working with this patient population.
Garcia-Olmos, et al., 2013, <i>BMC Family Practice</i> , Comorbidity in patients with chronic obstructive pulmonary disease in family practice: a cross- sectional study	To quantify the prevalence of COPD and related chronic comorbidity among patients aged >40 visiting family practices in an area of Madrid	(104,003 women, 94,667 men) out of 129 family practices, >40; observational, descriptive, cross- sectional study	Comunidad Autonoma de Madrid totalled 198,670 out of 129 practices. They were deemed to have COPD if this diagnosis appeared on their clnical histories. Data was	of 40 chronic expanded diagnosis clusters (EDC) identifed 26 "high prevalence-	presented with comorbidity with a mean of 4+/- 2.04 chronic diseases	are frequent in family practice, have a complex profile, and pose a clinical and organizational challenge to family practices.	Patients with COPD and one of more comorbidities have an increased risk of disease relate complications. The evaluation and awareness of these various diseases associated with COPI is important in the interventior we choose. For example, more frequent COPD exacerbation hospitalizations are associated with CVD. Thus, addressing these patient risk factors associated with the cross-over these comorbidities (i.e. medication effects) can be detrimental to decreasing mortality pre- and post- lung transplant.

2008, Eur Respir J, Prevalence and outcomes of diabetes, in COPDaged >45 years old.ARIC and CHS cohorts, wer combined and analyzed. The sample was stratified based on baseline stratified based on baseline according to the GOLD in COPDto be associated with more comorbid disease. In logistic regression models adjusting for age/sex/race/smoking/ bigher restace/smoking/is associated with a higher risk of comorbid disease, higher risk of adverse higher risk of adverse insk of futter complications. A hospitalizations and death; cohort studyaged >45 years old.ARIC and CHS cohorts wer combined and analyzed. The sample was stratified based on baseline stratified based on baseline stratified based on baseline for Chronicto be associated with more comorbid disease. In logistic regression models adjusting for age/sex/race/smoking/ bigher rations, bigher prevalence or CHS) cohort lung function data, according to the GOLD atcesse.to be associated with more comorbid disease. In logistic regression models adjusting for age/sex/race/smoking/ bigher ration, subjects with GOLD bigher ration, bigher prevalence increasing age, higher PML, logy S% CT 1.3-1.9), CVD significant relationship was presence of CVD, DM, and heir risk for mortality and presence of CVD, DM, and higher risk of normalities.relate to comorbid conditions in patients with COPD is doft futter comorbid disease bigher rationship was prevalence increasing age, higher PML, logges with a higher prevalence increasing age, higher PML, logges with a higher prevalence <b< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>-</th></b<>								-
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IndexRisk in Communities and death; cohort studyRisk in Communities Study (ARIC) cohort n=15,241 completed) (age 45-64).Pear follow-up were then searched for:BMI, education searched for:education, and male sex were and deaths (total unmer)presence of CVD, DM, and sesceitad with higher risk of all there comorbidities. Comorbid disease associated with higher risk of hospitalization and mortality that was worse in people with impaired lung function.presence of CVD, DM, and Persence of to 10.5 clinicallypresence of patients with COPD and emortality that was worse in people with impaired lung function.presence of patients, 61.9% of COPD patients, 10.9% of COPD patients, 10.9% of COPD patients, 10.9% of COPD patients with COPD patients that are undertreated. A mortalities and suffer freaded interventions were ehecklist- advanced chronic obstructive pulse that are undertreated. A outpatients with CCPF patients of CHF patients, 61.9% of COPD patients in that greater of the set with core professional learn mortality set with one set with set with core professional learn medications, outpatients with core professional learn medications, related interventions were ehecklist- advanced chronic obstructive pulse medications, disease or chronic heart failurePatients with core professional learn medications, related interventions were advanced chronic obstructive pulse that a curre professional, long heart failurePatients with core professional learn medications, related intervention of patient- that set undertreated. A micrition. Not ya minority of patients had received symptom- shad received symptom- advanced chronic bostructive pulse that set undertreated. A <b< td=""><td></td><td>hypertension, and</td><td>and females;</td><td>at baseline and deathand</td><td>Disease (GOLD),</td><td>(OR 2.4, 95% CI 1.9-3.0). In general,</td><td></td><td></td></b<>		hypertension, and	and females;	at baseline and deathand	Disease (GOLD),	(OR 2.4, 95% CI 1.9-3.0). In general,		
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comorbidities, and health care in advanced chronic obstructive pulmonary heart failureof health care in outpatients with advanced COPD and CHF; cross-sectional observational studypatients with CHF related interventions were also assessed.scale, (Health care checklist- addressing: medications, contacts of aliele health professionals was low. professionals, long therapy, noninvasive positive pressure opsitive pressure opsitive pressure outpatient, had received home adaptation, and medical aids), Charlston Comorbidity Indexregular assessment of protision of patient-tailored populations is key towards the interventions of patient- contacts of professionals was low. interventions is low professionals was low. interventions is low professionals was low. interventions is low were the most regularly seen health improvement of associated oppulation.regular assessment of prevalence of multiple complications. Addressing the provision of patient- complications. Addressing the provision of patient- complications is key towards the interventions of patient- centered goals. Especially when therapy, moninvasive population, home adaptation, and medical aids), Charlston Comorbidity Indexregular assessment of provision of patient- the outpatients was low. improve overal outcome. *(The improve overal		,			1 2		1 2 1	1
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obstructive pulmonary disease or chronic heart failureand CHF; cross-sectional observational studymedications, contacts of term oxygen harreny, noninvasive professionals, long- term oxygen harreny, noninvasive adaptation, and adaptation, and condiction failed.related treatment. Involvement in professionals was low. Harreny, medical aids. Physical therapists adaptation, and medical aids), Charlston Comorbidity Indexprovision of patient-tailored interventions is needed in term oxygen on their symptoms will help to on their symptoms will help to symptoms and functional improvement of associated symptoms and functional improvement of associated improvement of associated symptoms and functional improve overal outcome. *(The improvace of physical therapist as a direct line of comorbidity Indexrelated treatment. Involvement in professionals was low. Improving patient setting. were them adaptation and improve overal outcome. *(The improvace of physical improvace of physical 		1						
disease or chronic heart failure bart failure cross-sectional observational study cheart failure cross-sectional observational study complete intervention of patient- the outpatients study of life can be addressed by improvement of associated on their symptoms will help to reduce their risk of pre- and post surgical complications and improve overal outcome. *(The importance of physical therapists as direct line of comorbid ty Index comorbid ty Index			)		Ũ			
heart failureobservational studyprofessionals, long- term oxygenMajority of COPD and CHF patientsthe outpatient setting.centered goals. Especially when preparing for lung transplant, educating and treating patients' on their symptoms will help to symptoms and functional limitations.the outpatient setting.centered goals. Especially when preparing for lung transplant, educating and treating patients' on their symptoms will help to symptoms and functional improve overal outcome. *(The importance of physical therapists as a direct line of comorbidity IndexComorbidity IndexMajority of COPD and CHF patients had received home adaptation and medical aids. Physical therapists on their symptoms will help to symptoms and functional improve overal outcome. *(The importance of physical therapists as a direct line of comorbidity Index	1 5	· · ·			· · · ·			
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Janseen et al.,	To assess health		Assessment of each patient		Patients with COPD or CHF may	Clinical care should	Symptom burden can greatly
2011,	status and care		was done by a number of	Dimensions (EQ-	have impaired health status and	regularly assess symptom	affect patient outcomes pre-and
Qual Life Res,	dependency in	GOLD standard III	measures including	5D), Assessment of	require care dependency. Multiple	burden and care	post-lung transplant. Therefore,
Impaired health status	patients with	or IV, or NYHA	general health status,	quality of life	regression analyses show that	dependency to identify	the incorporation of intervention
and care dependency	advanced COPD or	class III or IV out	quality of life, disease-	instrument		patients with advanced	strategies for each comorbidity
in patients with	CHF and to	of five general	specific health statud,	(AQoL), medical	care dependency and number of drugs		specific to each patient is
advanced COPD or	identify coorelates					impaired health status.	important in improving health
chronic heart failure	of an impaired	2009.	dependency.	Item Short-Form	COPD and CHF.		status and quality of life.
	health status;			Health Survey (SF-			Reducing the need for these
	cross-sectional			36), St. Georges			patients to have medical aids
	study			Respiratory			secondary to their limitations by
				Questionnaire			addressing these needs in rehab
				(SGRQ),			is important.
				Minnesota living			
				with heart failure			
				questionnaire			
				(MLHFQ), Timed			
				up and go (TUG),			
				Care Dependency			
				Scale (CDS),			
				visual analog scale			
				(VAS), Charlson comorbidity index			
				-			
Arenas-de Larriva et	To describe the	N=156 patients,	Hospital medical records	BMD T-scores	Only 2 (3.1%) patients with COPD	Bone mineral loss is highly	Medications used for COPD
al.,	prevalence of BMD		and patient databases were	(based on World	51	prevalent in this	place an increased risk of
2010,	loss among patients	n=55 with	assessed with clnical	Health	lung transplant, only 9 (16.4%) of	population, but is rarely	reduced BMD prior to
Transplantation	evaluated as	interstitial lung	practice and ethical	Organization	patients with ILD, only 3 (14.3%) of	investigated before referral	transplant. Patients awaiting
Proceedings,	candidates for lung	< <i>//</i>	principles. Identification	criteria)	patients with CF. 116 (74.4%) patients	for lung transplantation. Its	lung transplant should be
Bone mineral density	transplant;	2	of the risk for fracture was		who hd BMD below normal values	identification can allow the	assessed for comorbidities such
in lung transplant	cross-sectional	fibrosis (CF).	assessed by BMD through		included 84.4% of COPD, 67.3% of		as osteopenia or osteoporosis in
candidates	study		densitometry of the		ILD, and 81% of CF. Detection of	the risk of fracture, before	order to address interventions to
		evaluated from	femoral neck and lumbar		these patients allowed initiation of	or after lung transplant.	reduce their risk of fracture prior
		2007-2009, > 17.	spine.		preventative treatment depending on		to or after surgery. Osteoporosis
					the degree of risk of bone fracture.		is often the "silent disease"
					Half of the patients evaluated were		because most people do not
					eventually included on the lung		know they have it until a
					transplant waiting list, with 70%		fracture- therefore identifying
					receiving a transplant.		their risk before hand will
							reduce related morbidity and
							moratality.

Cassie Short Summary Table Capstone 2013

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Reed et al.,	To review the data	N= 245 COPD	Records were reviewed for	DXA, OP	152 were included in the analysis (116	In COPD patients referred	Abnormal BMD is highly
2010,	from a cohort of	patients referred	each of the referred	medication use,	had OP- 76%). Clinical factors	for lung transplantation, OP	prevalent in the COPD
Respiratory Medicine,	advanced,	for lung	patients. Osteoporosis was	World Health	associated with OP included lower	is highly prevalent. Raised	population. This can be assessed
Elevated HDL	primarily	transplantation	defined by either dual	Organization	BMI (OR 0.81, 95% CI 0.73-0.90),	HDLc levels are common	through OP medication, or DX
cholesterol levels are	hypoxemic, COPD	between 1995-	energy x-ray	(WHO) criteria for	higher HDLc (OR 1.04, 95% CI 1.02-	in this group and are	scanning. When referred to have
associated with	patients evaluated	2009.	absorptiometry (DXA)	fracture risk,	1.07), and worse lung function. HDLc	independently associated	a lung transplantation,
osteoporosis in lung	for lung		scan or use of osteoporosis	demographics,	was an independent predictor of OP	with OP.	management of OP is importar
transplant candidates	transplantation to		medications. The presence	anthropometrics,	and demonstrated an inverse linear		to reduce future fractures or
with chronic	assess the		of absence of OP could be	pulmonary	correlation with T-scores (r=-0.21,		mobility limitations. HDLc
obstructive pulmonary	relationship		ascertained in 152	function, medical	p=0.05), which was stronger in males		levels are also important in the
disease	between HDLc		subjects. Cholesterol	comorbidities,	(r=-0.45, p=0.004). Prevalence of		assessment of COPD patients
	(High density		values and other clinical	fasting lipid profile	CVD, CAD, and other comorbidities		awaiting lung transplant,
	lipoprotein		variables were assessed for	values.	were similar with HTN being the		because elevated levels can be
	cholesterol) with		their association with OP.		most common in the OP group.		directly correlated with OP ris
	OP (osteoporosis);						

COPD=Chronic Obstructive Pulmonary Disease; CHF=Congestive Heart Failure; CHD=Coronary Heart Disease; HTN=hypertension; CVA=stroke; DM=diabetes mellitus; GRF=glomerular filtration rate; BMI=body mass index; CAD= Coronary artery disease; CVD= Cardiovascular disease; OR= Odds ratio; CI= Confidence Interval; GOLD= Global initiative for Chronic Lung Disease; NYHA= New York Heart Association.

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