Duke University School of Nursing

A Smart-phrase to Improve Documentation of Supportive Measures for IPF

Christine Anderson, DNP, NP-C, Christine Tocchi, PhD, GNP-BC, Lake Morrison, MD, Craig Rackley, MD

Introduction

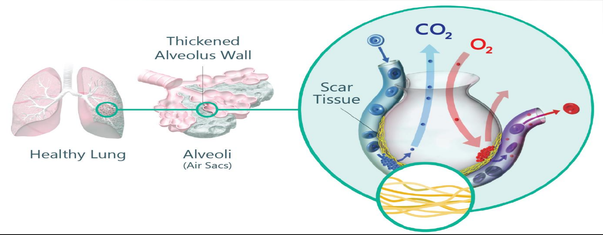
- Idiopathic pulmonary fibrosis (IPF) is a chronic, progressive fibrosing interstitial pneumonia of unknown cause[1].
- Supportive care measures that are outlined by the clinical guidelines for treating IPF which provides patients with IPF management of their symptoms[2].
- These include breathlessness[3], cough and fatigue and may include oxygen therapy, pulmonary rehabilitation, acid reflux therapy (for GERD symptoms), sleep apnea testing and pulmonary hypertension assessment.

Project Aims

- Develop a smart-phrase of supportive care measures for IPF patients to be utilized by physicians during clinic visits.
- Assess knowledge base of the physician group on the ATS guidelines and supportive care measures as evidenced by pre-test post-test scores during an ATS guideline education seminar.
- Absent documentation of supportive care measures will decrease by 50% by the physician group.

Project Method

- Physician Education: Pre-test, education session on current ATS guidelines, post-test.
- Chart review was performed on a random sample of IPF patient charts from the ILD clinic to identify the percentage of compliance by the physician group with documentation of the supportive care measures.
- Variables measured included supplemental oxygen, pulmonary rehabilitation, pulmonary hypertension assessment, vaccination, gastroesophageal reflux, lung transplantation and sleep apnea.
- The smart-phrase that could be inserted into the patient chart in the electronic medical record (EMR) by using a dot-phrase .IPFSUPPORT to generate the checklist (Figure 1).



Sample Demographics of ILD Physicians (n=7)	
Gender	
Male	6
Female	1
Board Certified in Pulmonary Medicine	
Yes	7
No	0
Experience caring for IPF Patients (in years)	
Range	1-10
Mean	4
Median	5
Mode	5
New Patients Seen in Clinic Per Week	
	21 on average

Figure 1.

.IPFSUPPORT

Supportive Care Measures for IPF patients

Oxygen therapy:
Already on oxygen
No oxygen required
Not assessed
***

Pulmonary Rehabilitation:
Rehabilitation program completed
Enrolled in rehabilitation program
Rehabilitation ordered
Not assessed
***

Vaccinations:
Influenza up to date
Prevnar up to date
Pneumovax up to date
Not assessed
***

Pulmonary Hypertension:
Echocardiogram done
Echocardiogram ordered
Not assessed
***

GERD:
On medical therapy
No reflux symptoms noted
Not assessed
***

Sleep apnea:
On therapy
Sleep study scheduled
Sleep study done and no therapy indicated
Not assessed
***

Lung Transplant Evaluation:
Not a transplant candidate
Too early for referral
Referral to transplant done
Not assessed
***

Results

One-way repeated measures ANOVA analysis of Implementation Data							
	Pre-study		Post-implementation at 6 weeks		Post-six week implementation		
Supportive Care Measure	n=44	%	n=44	%	n=44	%	Significance
Oxygen Therapy	41	93	44	100	44	100	p=.083
Pulmonary Rehab	23	52	40	90	44	100	p<.000
Pulmonary Hypertension	19	43	37	85	32	73	p<.000
Vaccination	8	18	44	100	44	100	p<.000
Lung Transplantation	16	36	35	79	42	95	p<.000
GERD Treatment	33	75	44	100	44	100	p<.000
Sleep Apnea	11	25	31	70	31	70	p<.000

Discussion

- All project aims were met: smart-phrase developed, physician knowledge assessed with 100% accuracy, and absent documentation was decreased by more than 50%.
- Documentation of pulmonary hypertension and sleep apnea did not improve over 70% as these are often later findings in patients with IPF.
- There were noted to be a couple of barriers to complete documentation by the physician group: short new patient time-slots of 40 minutes which is not enough time to fully assess all pertinent systems, and there are other tests that need to be completed after the initial visit prior to a proper diagnosis being made.
- Using the smart-phrase did not increase the work-load on the physician which is consistent with current research.
- IPF is a progressive disease that worsens over time. Some of the co-morbid conditions have not developed at the initial visit and are often not assessed up front.

References

1 Raghu, G., et al. (2015). "An Official ATS/ERS/JRS/ALAT Clinical Practice Guideline: Treatment of Idiopathic Pulmonary Fibrosis. An Update of the 2011 Clinical Practice Guideline." Am J Respir Crit Care Med 192(2): e3-19.
2. Danoff, S. K. and E. H. Schonhoft (2013). "Role of support measures and palliative care." Curr Opin Pulm Med 19(5): 480-484.
3 Garibaldi, B. T. and S. K. Danoff (2016). "Symptom-based management of the idiopathic interstitial pneumonia." Respirology 21(8): 1357-1365.