DIAGNOSTIC NOTE TEMPLATE

SOAP NOTE TEMPLATE WHEN CONSIDERING A DIAGNOSIS OF IDIOPATHIC PULMONARY FIBROSIS (IPF)

SUBJECTIVE

CHIEF COMPLAINT:

HISTORY OF PRESENT ILLNESS:

Consider IPF as possible diagnosis if any of the following applies[1]:
>50 years of age with any of the following:
– Chronic cough
– Dyspnea upon exertion
– History of smoking

MEDICAL HISTORY:

Medical Conditions	Medications
It is important to rule out other causes of ILD such as: connective tissue disease-related interstitial lung disease, chronic hypersensitivity pneumonitis, sarcoidosis, and radiation- and drug-induced lung disease[1]	Inquire specifically about pneumotoxic drugs[3]
The following comorbidities are common in patients with IPF[2*]: – Cardiovascular disease – Chronic obstructive pulmonary disease – Gastroesophageal reflux disease – Lung cancer – Metabolic disorders – Obstructive sleep apnea – Pulmonary arterial hypertension – Pulmonary embolism *Listed in alphabetical order	

SMOKING HISTORY:

Consider IPF as a possible diagnosis if patient presents with a smoking history[1]

FAMILY HISTORY:

Consider IPF as a possible diagnosis if patient presents with a family history of IPF[1]

SOCIAL HISTORY:

Ensure work history and environmental exposures are discussed to rule out other causes of ILD[1]

OBJECTIVE

VITAL SIGNS:

SEROLOGICAL TESTING:

Consider IPF as a possible diagnosis if autoimmune workup is negative and other features consistent with IPF are positive[1]

LUNG AUSCULTATION:

Consider IPF as a possible diagnosis if patient demonstrates inspiratory, bibasilar "Velcro®-like" crackles[1]

LUNG FUNCTION:

Lung Volume	Flow	Gas Exchange
TLC:	FEV_1:	DL_{CO}:
	FVC:	
	FEV_1/FVC:	

Consider IPF as a possible diagnosis if patient demonstrates the following lung function results:
- Reduced TLC and/or FVC[1]
- FEV_1/FVC consistent with restrictive pattern

NOTE: In certain situations, IPF patients may exhibit normal or obstructive patterns if concomitant obstructive disease exists. Therefore, while a restrictive pattern is indicative of IPF, lacking a restrictive pattern does not preclude an IPF diagnosis.

- Reduced DL_{co}[1]

TLC = total lung capacity; FEV = forced expiratory volume in 1 second; FVC = forced vital capacity; DL_{co} = diffusing capacity of lung for carbon monoxide

EXERCISE CAPACITY:

Oxygen Saturation with Exertion (6-MWT)	Oxygen Saturation at Rest

Consider IPF as a possible diagnosis if patient demonstrates the following exercise testing results:
- Low oxygenation

6-MWT = 6-minute walk test

RADIOGRAPHIC ASSESSMENT:

Order chest HRCT when considering IPF

For quality imaging, ensure HRCT is conducted using proper technique[4]:
- Slice thickness ≤2 mm
- Noncontrast conditions
- Full inspiration without respiratory motion
- Field of view to include lungs only
  - High-resolution reconstruction algorithm

List not exhaustive. Please see reference 4.

Consider IPF if HRCT shows a pattern of usual interstitial pneumonia (UIP)[1]:
- Predominant subpleural distribution
- Reticular abnormalities
- Honeycombing
- Absence of features inconsistent with UIP

In cases of possible UIP*, consider pathological assessment

*The ATS diagnostic guidelines are based on categorization of HRCT patterns such as UIP, possible UIP, and inconsistent with UIP. The Fleischner Society has since released a white paper with revised categories: typical UIP, probable UIP, and indeterminate for UIP. The white paper states that a confident diagnosis of IPF can be made in the correct clinical context with a radiographic pattern of typical or probable UIP. The ATS guidelines may be updated to reflect the revised categories.[5]

ASSESSMENT/PLAN

DIAGNOSIS:

Include IPF in your differential diagnosis if other known causes have been excluded and a UIP pattern is present on HRCT[1]

MANAGEMENT PLAN:

Initiate a comprehensive management plan and consider the following:

- Pharmacologic treatment and nonpharmacologic treatments are important to comprehensive patient management[6]
  - FDA-approved, IPF-specific therapy; management of comorbidities; symptom management; clinical trials enrollment[6-8]
  - Supplemental oxygen, pulmonary rehabilitation, disease education, psychosocial support, evaluation for lung transplant, and palliative care[1]
- Consider comorbidities and concomitant medications when selecting the most appropriate management plan[7]
- Manage comorbidities as medically appropriate[7]
- Monitor disease progression at least every 6 months or as medically appropriate[1]
- A collaborative conversation with your patients can encourage them to follow their management plan[9]
  - Important information to communicate when discussing IPF with your patients includes:
    - The patient's lung function will deteriorate at any time, so intervening upon diagnosis is crucial[10,11]
    - Educate patients on management options for IPF[6]
    - Adhering to a management plan is important to managing IPF and associated comorbidities[7]
- Provide support for caregivers[7]
- Schedule next follow-up

References:

1. Raghu, et al. *Am J Respir Crit Care Med.* 2011;183:788-824.
2. Raghu, et al. *Eur Respir J.* 2015;46:1113-1130.
3. Mayo Clinic website. http://www.mayoclinic.org/diseases-conditions/interstitial-lung-disease/basics/causes/con-20024481. Accessed December 4, 2017.
4. Raghu, et al. *Am J Respir Crit Care Med.* 2011;183:788-824 (online supplement).
5. Lynch, et al. Published online ahead of print November 15, 2017. *Lancet Respir Med*. doi: 10.1016/S2213-2600(17)30433-2. Accessed December 4, 2017.
6. Raghu, et al. *Am J Respir Crit Care Med.* 2015;192:e3-e19.
7. Lee, et al. *Curr Opin Pulm Med.* 2011;17:348-354.
8. Padilla. *Am J Manag Care*. 2015;21(suppl 14):s276-s283.
9. Pulmonary Fibrosis Foundation. *Pulmonary Fibrosis Patient Information Guide.* Chicago, IL: Pulmonary Fibrosis Foundation; 2015.
10. Cottin and Richeldi. *Eur Respir Rev*. 2014;23:106-110.
11. Ley, et al. *Am J Respir Crit Care Med.* 2011;183:431-440.

FOLLOW-UP NOTE TEMPLATE

SOAP NOTE TEMPLATE WHEN MANAGING A PATIENT WITH IPF

SUBJECTIVE

CHIEF COMPLAINT:

HISTORY OF PRESENT ILLNESS:

Evaluate for change in symptoms and oxygen requirement, and determine whether these are due to IPF- or non-IPF-related causes[1]

MEDICAL HISTORY:

Medical Conditions	Medications
	Any updates since last visit?

SMOKING HISTORY:

If patient is a current smoker, stress the benefits of quitting[2]

FAMILY HISTORY:

Any updates since last visit?

SOCIAL HISTORY:

OBJECTIVE

VITAL SIGNS:

LUNG AUSCULTATION:

Any change since last visit? Presence of inspiratory, bibasilar "Velcro®-like" crackles?

LUNG FUNCTION:

Lung Volume	Flow	Gas Exchange
TLC:	FEV_1:	DL_{CO}:
	FVC:	
	FEV_1/FVC:	

Monitor every 3-6 months or as medically appropriate[1]

TLC = total lung capacity; FEV_1 = forced expiratory volume in 1 second; FVC = forced vital capacity; DL_{CO} = diffusing capacity of lung for carbon monoxide

EXERCISE CAPACITY:

Oxygen Saturation with Exertion (6-MWT)	Oxygen Saturation at Rest

Monitor every 3-6 months or as medically appropriate[1]

ASSESSMENT/PLAN

DIAGNOSIS:

Any change in disease status or new diagnoses since last visit?

MANAGEMENT PLAN:

Continue to implement a comprehensive management plan and consider the following:

- Pharmacologic treatment and nonpharmacologic treatments are important to comprehensive patient management[3]
  - FDA-approved, IPF-specific therapy; management of comorbidities; symptom management; clinical trials enrollment[2-4]
  - Supplemental oxygen, pulmonary rehabilitation, disease education, psychosocial support, evaluation for lung transplant, and palliative care[1]
- Consider comorbidities and concomitant medications when selecting the most appropriate management plan[2]
- Manage comorbidities as medically appropriate[2]
- Monitor disease progression at least every 6 months or as medically appropriate[1]
- A collaborative conversation with your patients can encourage them to follow their management plan[5]
  - Important information to communicate when discussing IPF with your patients includes:
    - The patient's lung function will deteriorate at any time, so intervening upon diagnosis is crucial[6,7]
    - Educate patients on management options for IPF[3]
    - Adhering to a management plan is important to managing IPF and associated comorbidities[2]
- Provide support for caregivers[2]
- Schedule next follow-up

References:

1. Raghu, et al. *Am J Respir Crit Care Med.* 2011;183:788-824.
2. Lee, et al. *Curr Opin Pulm Med.* 2011;17:348-354.
3. Raghu, et al. *Am J Respir Crit Care Med.* 2015;192:e3-e19.
4. Padilla. *Am J Manag Care.* 2015;21(suppl 14):s276-s283.
5. Pulmonary Fibrosis Foundation. *Pulmonary Fibrosis Patient Information Guide. Chicago*, IL: Pulmonary Fibrosis Foundation; 2015.
6. Cottin and Richeldi. *Eur Respir Rev.* 2014;23:106-110.
7. Ley, et al. *Am J Respir Crit Care Med.* 2011;183:431-440.