Interstitial Lung Disease

Wednesday, August 17, 2016

12:46 PM

**Table 1: Criteria for Defining ILD**

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|  | **Definition 1** | **Definition 2(for pfizer 2016)** | **Definition 3** | **Definition 4** |
| ICD 9 Code Set | Standard | Standard + Expanded | Standard | Standard + Expanded |
| Inpatient Claim Position | Primary | Primary | Any | Any |
| ILD Diagnostic test< 90 days before or at DX date | Required | Required | Not Required | Not Required |

In definitions 1 and 2, patients were designated as having incident ILD if they had

        a primary diagnosis of ILD on an inpatient claim OR

        (two or more eligible diagnoses, in any position, on nondiagnostic claims in any setting) AND (evidence of a diagnostic test for ILD in the90 days prior to or on the same date as an ILD diagnosis)

In definitions 3 and 4, patients were designated as having incident ILD if they had

        any diagnosis of ILD on an inpatient claim OR

        two or more eligible diagnoses, in any position, on nondiagnostic claims in any setting

The reader should note that ICD 9 CM diagnosis codes 516.35 – 516.6 were issued at the end of 2011 and accordingly may not have been widely used during the study window.

Eligible ILD diagnostic tests included either computed tomography of the thorax (CPT 71250, 71260, 71270, 71275; ICD 9 Proc 87.41 & 87.42) or any lung biopsy (bronchial, pleural, lung infiltrate, lung nodule, pericardial sac) as defined in Table3.

**Table 2:  ICD 9 CM Codes Defining Interstitial Lung Disease**

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| **Definition** | **ICD 9 CM Code** | **ICD 9 CM Description** |
| Codes in the standard definition | 515.xx | Post inflammatory pulmonary fibrosis |
|  | 516.30 | Idiopathic interstitial pneumonia not otherwise specified |
|  | 516.31 | Idiopathic pulmonary fibrosis |
|  | 516.32 | Idiopathic non-specific interstitial pneumonitis |
|  | 516.33 | Acute interstitial pneumonitis |
|  | 516.34 | Respiratory bronchiolitis interstitial lung disease |
|  | 516.35 | Idiopathic lymphoid interstitial pneumonia |
|  | 516.36 | Cryptogenic organizing pneumonia |
|  | 516.37 | Desquamative interstitial pneumonia |
|  | 516.4x | Lymphangioleiomyomatosis (LAM) |
|  | 516.5x | Adult pulmonary langerhans cell histiocytosis (PLCH) |
|  | 516.6x | Interstitial lung diseases of childhood |
| Codes in the expanded definition | 516.8x | Other specified alveolar and parietoalveolar pneumonopathies |
|  | 516.9x | Unspecified alveolar and parietoalveolar pneumonopathy |
|  | 714.81 | Rheumatoid lung |

**\*\*\*should we also include: 710.9 Unspecified diffuse connective tissue disease ? FX**

**Table 3:  CPT Codes for Lung Biopsy**

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| **CPT Code** | **CPT Description** |
| 31625 | Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with bronchial or endobronchial biopsy(s), single or multiple sites |
| 31628 | Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with transbronchial lung biopsy(s), single lobe |
| 31629 | Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with transbronchial needle aspiration biopsy(s), trachea, main stem and/or lobar bronchus |
| 31632 | Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with transbronchial lung biopsy(s), each additional lobe |
| 31633 | Bronchoscopy, rigid or flexible, including fluoroscopic guidance, when performed; with transbronchial needle aspiration biopsy(s), each additional |
| 32095 | Thoracotomy, limited, for biopsy of lung or pleura |
| 32096 | Thoracotomy, with diagnostic biopsy of lung infiltrate(s) (e.g., wedge, incisional), unilateral |
| 32097 | Thoracotomy, with diagnostic biopsy of lung nodule/mass (e.g., wedge, incisional), unilateral |
| 32098 | Thoracotomy, with biopsy(ies) of pleura |
| 32400 | Biopsy, pleura; percutaneous needle |
| 32405 | Biopsy, lung or mediastinum, percutaneous needle |
| 32604 | Thoracoscopy, diagnostic (separate procedure); pericardial sac, with biopsy |
| 32606 | Thoracoscopy, diagnostic (separate procedure); mediastinal space, with biopsy |
| 32607 | Thoracoscopy; with diagnostic biopsy of lung infiltrate (e.g., wedge, incisional), unilateral |
| 32608 | Thoracoscopy; with diagnostic biopsy of lung nodule/mass (e.g., wedge, incisional), unilateral |
| 32609 | Thoracoscopy; with biopsy(ies) of pleura |

The secondary study outcome was the frequency of specific types of ILD complications in patients with a history of ILD during baseline.  Eligible complications included a hospitalization with a primary diagnosis of ILD, hospitalization with a primary diagnosis of pneumonia (480.xx-486.xx; 487.0x), initiation of home based oxygen (Table 4) or the occurrence of a lung transplant (Table 5).

Existing ILD disease was defined as presented in Table1, using all available claims history.  Use of oxygen was considered new if there was no evidence of oxygen use during baseline as defined either by issuance of an oxygen related device or the presence of an ICD 9 CM diagnostic code suggesting either dependence on supplemental oxygen or long-term oxygen therapy (V46.2).

**Table 4:  HCPCS Procedures Codes, Home Based Oxygen**

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| **HCPCS  Code** | **HCPCS Long Description** |
| A4606 | Oxygen probe for use with oximeter device, replacement |
| A4608 | Transtracheal oxygen catheter, each |
| A4615 | Cannula, nasal |
| A4616 | Tubing (oxygen), per foot |
| A4619 | Face tent |
| A4620 | Variable concentration mask |
| E0424 | Stationary compressed gaseous oxygen system, rental; includes container, |
| E0425 | Stationary compressed gas system, purchase |
| E0430 | Portable gaseous oxygen system, purchase |
| E0431 | Portable gaseous oxygen system, rental |
| E0433 | Portable liquid oxygen system, rental |
| E0434 | Portable liquid oxygen system, rental; includes portable container, supply |
| E0435 | Portable liquid oxygen system, purchase; includes portable container, supply |
| E0439 | Stationary liquid oxygen system, rental; includes container, contents, |
| E0440 | Stationary liquid oxygen system, purchase; includes use of reservoir, contents |
| E0441 | Stationary oxygen contents, gaseous, 1 month's supply = 1 unit |
| E0442 | Stationary oxygen contents, liquid, 1 month's supply = 1 unit |
| E0443 | Portable oxygen contents, gaseous, 1 month's supply = 1 unit |
| E0444 | Portable oxygen contents, liquid, 1 month's supply = 1 unit |
| E0446 | Topical oxygen delivery system, not otherwise specified, includes all supplies |
| E0455 | Oxygen tent, excluding croup or pediatric tents |
| E0550 | Humidifier, durable for extensive supp humidification during IPPB trt or O2 delivery |
| E0560 | Humidifier, durable for supp humidification during IPPB treatment or O2 delivery |
| E0580 | Nebulizer, with compressor, durable, for use with regulator or flowmeter |
| E1353 | Regulator |
| E1354 | Oxygen accessory, wheeled cart for portable cylinder or portable concentrator |
| E1356 | Oxygen accessory, battery pack/cartridge for portable concentrator, any type |
| E1357 | Oxygen accessory, battery charger for portable concentrator, any type |
| E1358 | Oxygen accessory, dc power adapter for portable concentrator, any type |
| E1390 | Oxygen concentrator, single delivery port |
| E1391 | Oxygen concentrator, dual delivery port |
| E1392 | Portable oxygen concentrator, rental |
| K0738 | Portable gaseous oxygen system, rental |
| K0740 | Repair or nonroutine service for oxygen equipment |
| K0741 | Portable gaseous oxygen system, rental, includes portable container, regulator, |
| K0742 | Portable oxygen contents, gaseous, 1 month's supply = 1 unit, for cluster |
| S8120 | Oxygen contents, gaseous, 1 unit equals 1 cubic foot |
| S8121 | Oxygen contents, liquid, 1 unit equals 1 pound |

**Table5:  Procedures Codes for Lung Transplantation**

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| **Code Type** | **Code** | **Code Description** |
| CPT | 32850 | Donor pneumonectomy(s) (including cold preservation), from cadaver donor |
| CPT | 32851 | Lung transplant, single; without cardiopulmonary bypass |
| CPT | 32852 | Lung transplant, single; with cardiopulmonary bypass |
| CPT | 32853 | Lung transplant, double (bilateral sequential or en bloc); without cardiopulmonary bypass |
| CPT | 32854 | Lung transplant, double (bilateral sequential or en bloc); with cardiopulmonary bypass |
| CPT | 32855 | Backbench standard preparation of cadaver donor lung allograft prior to transplantation, including dissection of allograft from surrounding soft tissues to prepare pulmonary venous/atrial cuff, pulmonary artery, and bronchus; unilateral |
| CPT | 32856 | Backbench standard preparation of cadaver donor lung allograft prior to transplantation, including dissection of allograft from surrounding soft tissues to prepare pulmonary venous/atrial cuff, pulmonary artery, and bronchus; bilateral |
| CPT | 33935 | Heart-lung transplant with recipient cardiectomy, pneumonectomy |
| HCPCS | S2060 | Lobar lung transplantation |
| HCPCS | S2061 | Donor lobectomy (lung) for transplantation, living donor |
| ICD 9 PROC | 33.50 | Lung transplantation, NOS |
| ICD 9 PROC | 33.51 | Unilateral lung transplantation |
| ICD 9 PROC | 33.52 | Bilateral lung transplantation |

Curtis et al. Arthritis Research & Therapy (2015) 17:319 DOI 10.1186/s13075-015-0835-7

**Definition from SABER 1 obsolete**

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| **Interstitial Lung Disease (ILD)** | **ICD-9-CM** | **Algorithm / Definition** | **Remarks / other definitions** |
| ILD | 515, 516.3, 516.8, 518.89 | *>2 inpatient or outpatient ICD-9 codes (515, 516.3, 516.8, and 518.89) given > 7 days apart* | ppv =0.63 (95% CI, 0.60-0.65) Herrinton L et al. PDS 2012 |

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| icd9 | description | disease | type |
| 515 | Postinflammatory pulmonary fibrosis | ild | Interstitial Lung Disease |
| 51630 | Idiopathic interstitial pneumonia, not otherwise specified | ild | Interstitial Lung Disease |
| 51631 | Idiopathic pulmonary fibrosis | ild | Interstitial Lung Disease |
| 51632 | Idiopathic non-specific interstitial pneumonitis | ild | Interstitial Lung Disease |
| 51633 | Acute interstitial pneumonitis | ild | Interstitial Lung Disease |
| 51634 | Respiratory bronchiolitis interstitial lung disease | ild | Interstitial Lung Disease |
| 51635 | Idiopathic lymphoid interstitial pneumonia | ild | Interstitial Lung Disease |
| 51636 | Cryptogenic organizing pneumonia | ild | Interstitial Lung Disease |
| 51637 | Desquamative interstitial pneumonia | ild | Interstitial Lung Disease |
| 5168 | Other specified alveolar and parietoalveolar pneumonopathies | ild | Interstitial Lung Disease |
| 51889 | Other diseases of lung, not elsewhere classified | ild | Interstitial Lung Disease |