

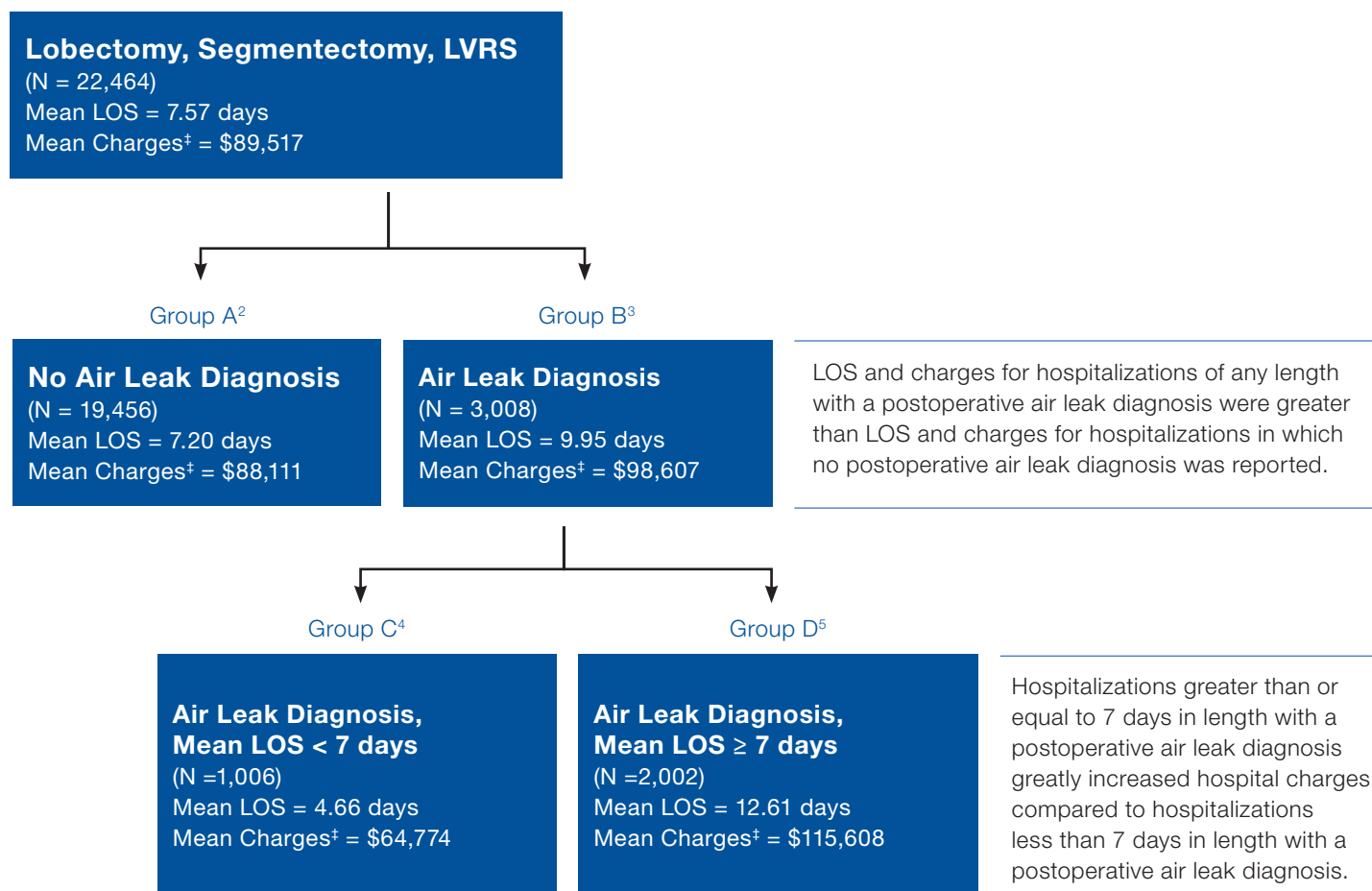
# LENGTH OF STAY AND CHARGE DATA<sup>1</sup>

**of Inpatient Hospitalizations for Medicare Beneficiaries Who Had  
Lobectomy, Segmentectomy or Lung Volume Reduction Surgery (LVRS)**

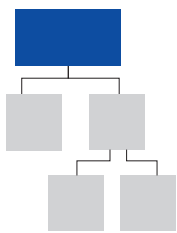
# DEFINITIONS AND METHODS

- The purpose of this document is to provide a summary of claims data on length of stay and charges for inpatient hospitalizations for Medicare beneficiaries who had lobectomy, segmentectomy or Lung Volume Reduction Surgery (LVRS).<sup>1</sup>
- Data was taken from Medicare Provider Analysis and Review (MEDPAR)<sup>1</sup> data set containing inpatient hospital claim information records for 100% of Medicare beneficiaries who use hospital inpatient services. Each MEDPAR record summarizes all services furnished to a beneficiary during a single hospitalization, from the time of admission to a facility through discharge. The data provided is for informational use only. Spiration disclaims any responsibility for the accuracy of the data contained herein.
- Data is representative of Medicare inpatient claims only; does not include Current Procedural Terminology (CPT) charge data or claims data from Medicaid or other third party payer claims.
- New ICD-9CM diagnosis codes for air leak became available for use in Fiscal Year (FY) 2012; therefore, the FY 2012 (October 1, 2011 - September 30, 2012) MEDPAR file is the first available claims data using these codes. As with any new codes, they may be underreported in claims for the first year they are available.
- “Charges” are defined as the total amount (rounded to whole dollars) of all charges for all services provided to the beneficiary for the stay. Charges do not reflect or provide any indication of reimbursement rates. Payment is determined on an admission by admission basis. Please note that charge data is different from hospital cost data; cost data is not available in this summary.
- “Hospitalizations” are defined as inpatient stays for Medicare beneficiaries who had lobectomy, segmentectomy or Lung Volume Reduction Surgery (LVRS).
- “Length of stay” (LOS) is defined as the count in days from date of admission to date of discharge.

## RESULTS



# DETAILED FINDINGS AND SUMMARY



Principal Surgical Procedure	Number of Claims	Mean LOS (Days)	Mean Charges <sup>†</sup>
Lobectomy	19,131	7.69	\$90,323
Segmentectomy	3,248	6.78	\$83,381
LVRS	85	11.47	\$142,445
TOTAL	22,464	7.57	\$89,517

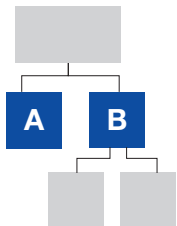
## Diagnosis And Procedure Codes Used For This Analysis Include:

### ICD-9-CM Procedure Codes (Principal Surgery)

- 32.22 Lung Volume Reduction Surgery
- 32.30 Thoracoscopic Segmental Resection of Lung
- 32.39 Other and Unspecified Thoracoscopic Segmental Resection of Lung
- 32.41 Thoracoscopic Lobectomy of Lung
- 32.49 Other Lobectomy of Lung

### ICD-9-CM Diagnosis Codes (Air Leak)

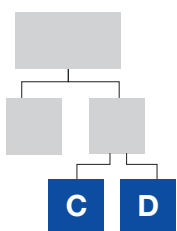
- 512.2 Postoperative Air Leak
- 512.84 Other Air Leak  
*Persistent Air Leak*



Principal Surgical Procedure	Group A: No Air Leak Diagnosis <sup>2</sup>		Group B: With Air Leak Diagnosis <sup>3</sup>		Increase From Group A to B (Days)	% Increase From Group A to B <sup>†</sup>
	Number of Claims	Mean LOS (Days)	Number of Claims	Mean LOS (Days)		
Lobectomy	16,447	7.33	2,864	9.89	2.56	35%
Segmentectomy	2,957	6.47	291	9.97	3.5	54%
LVRS	52	9.79	33	14.12	4.33	44%
TOTAL	19,456	7.20	3,008	9.95	2.75	38%

Principal Surgical Procedure	Number of Claims	Mean Charges <sup>†</sup>	Number of Claims	Mean Charges <sup>†</sup>	Increase From Group A to B <sup>†</sup>	% Increase Between Group A and B <sup>†</sup>
Segmentectomy	2,957	\$81,530	291	\$102,189	\$20,659	25%
LVRS	52	\$140,245	33	\$145,911	\$5,666	4%
TOTAL	19,456	\$88,111	3,008	\$98,607	\$10,496	12%



Principal Surgical Procedure	Group C: With Air Leak Diagnosis, LOS < 7 Days <sup>4</sup>		Group D: With Air Leak Diagnosis, LOS ≥ 7 Days <sup>5</sup>		Increase From Group C to D (Days)	% Increase From Group C to D <sup>†</sup>
	Number of Claims	Mean LOS (Days)	Number of Claims	Mean LOS (Days)		
Lobectomy	894	4.68	1,790	12.5	7.82	167%
Segmentectomy	107	4.43	184	13.19	8.76	198%
LVRS	*	*	28	15.68	10.28	190%
TOTAL	*	4.66	2,002	12.61	7.95	171%

Principal Surgical Procedure	Number of Claims	Mean Charges <sup>†</sup>	Number of Claims	Mean Charges <sup>†</sup>	Difference From Group C to D <sup>†</sup>	% Increase From Group C to D <sup>†</sup>
Segmentectomy	107	\$67,447	184	\$122,391	\$54,944	81%
LVRS	*	*	28	\$154,146	\$54,348	54%
TOTAL	*	\$64,774	2,002	\$115,609	\$50,835	78%

\* Data unreportable. MEDPAR data user agreements prohibit report of data associated with volume fewer than 11 claims.

## DISCLAIMER

The information provided in this reference sheet contains general reimbursement information only and is not legal advice nor is it advice about how to code, complete, or submit any particular claim for payment. Information provided is not intended to increase or maximize reimbursement by any payer. The information provided represents Spiration's understanding of current reimbursement policies. It is a hospital and physician responsibility to determine appropriate codes, charges, and modifiers, and submit bills for the services consistent with the patient insurer requirements. Third-party payers may have different policies and coding requirements. Such policies can change over time. Spiration disclaims any responsibility for claims submitted by hospitals or physicians. Hospitals and physicians should check and verify current policies and requirements with the payer for any particular patient that will be using the IBV Valve System. Spiration is available to help in this process. **The key in all coding and billing to payers is to be truthful and not misleading and make full disclosures to the payer about how the product has been used and the procedures necessary to deploy and remove the product when seeking reimbursement for any product or procedure.**

## CAUTION

**Humanitarian Device.** Authorized by Federal law for use in the control of prolonged air leaks of the lung, or significant air leaks that are likely to become prolonged air leaks, following lobectomy, segmentectomy, or Lung Volume Reduction Surgery (LVRS). The effectiveness of this device for this use has not been demonstrated. Federal law restricts this device to sale by or on the order of a physician.

**Contraindications:** Patient is unable to tolerate a flexible bronchoscopy procedure.

**Warnings:** Atelectasis may occur after the air leak seals and patients should be monitored for this possible complication.

**General Precautions:** The IBV Valve System should not be used for patients who have active asthma, bronchitis or clinically significant bronchiectasis. Only use a bronchoscope with a working channel of 2.6mm or larger. Do not use the IBV Valve System for other than its intended use.

**Potential Adverse Effects:** Atelectasis; Death; Infection in the tissue distal to a valve; Local airway swelling or edema at site of valve implantation; Pneumothorax.

**For full prescribing information go to: [www.spiration.com/IFU](http://www.spiration.com/IFU)**

## References

1. The FY 2012 Final Rule Medicare Provider Analysis and Review (MEDPAR) claims data file, used for 2014 rate setting, includes data from inpatient claims billed to Medicare in FY 2012 (claims billed from October 1, 2011 through September 30, 2012).
2. Group A represents inpatient claims billed with one or more of the ICD-9-CM procedure codes for lobectomy, segmentectomy or LVRS listed as the principal surgery (32.22, 32.30, 32.39, 32.41, 32.49); however, excludes any claims with an ICD-9-CM diagnosis codes for air leak (512.2, 512.84).
3. Group B represents inpatient claims billed with one or more of the ICD-9-CM procedure codes for lobectomy, segmentectomy or LVRS listed as the principal surgery (32.22, 32.30, 32.39, 32.41, 32.49), which also include one or more of the ICD-9-CM diagnosis codes for air leak (512.2, 512.84).
4. Group C represents inpatient claims for hospitalizations less than 7 days in length that were billed with one or more of the ICD-9-CM procedure codes for lobectomy, segmentectomy or LVRS listed as the principal surgery (32.22, 32.30, 32.39, 32.41, 32.49), which also include one or more of the ICD-9-CM diagnosis codes for air leak (512.2, 512.84).
5. Group D represents inpatient claims for hospitalizations greater than or equal to 7 days in length that were billed with one or more of the ICD-9-CM procedure codes for lobectomy, segmentectomy or LVRS listed as the principal surgery (32.22, 32.30, 32.39, 32.41, 32.49), which also include one or more of the ICD-9-CM diagnosis codes for air leak (512.2, 512.84).

† Percent rounded to decimal.

‡ Rounded to the dollar.



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