

QIBA Project 2(a). TITLE: Assessing Measurement Variability of Lung Lesions in Patient Data Sets

6-month progress (previously reported)

1. Results of data analysis have been reported to QIBA 1B group in fall 2011 including:
 - a. Inter- and intra-reader variability analysis
 - b. Investigation into minimum detectable change using data analyzed
 - c. subgroup analysis for different lesion characteristics (e.g. variability for simple lesions vs. complex lesions vs. lesions that are attached to normal anatomic structures)
2. This work was reported on at RSNA in an informal poster presentation (see attached).
3. This work is also continuing and being extended in Project 15(a): Extension of Assessing Measurement Variability of Lung Lesions in Patient Data Sets: Variability under Clinical Workflow Conditions

12-Month Deliverables

- **Submission of results to conferences, (e.g., RSNA, SPIE), for presentation**

The results of the previous effort were reported at RSNA 2011 at an informal poster presentation, including the following results:

| | 1D [95% CI]* | 2D [95% CI]* | 3D [95% CI]* |
|---|-----------------|-----------------|-----------------|
| All (N=32) | [-0.3%, 12%] | [1%, 29%] | [-4%, 55%] |
| Subjective assessment category – EASY (N=12) | [-1%, 3%] | [-2%, 7%] | [-1, 7%] |
| Moderate (N=5) | [-4, 23%] | [-17, 53%] | [-4, 89%] |
| Difficult (N=15) | [-1%, 18%] | [2, 47%] | [-10, 83%] |

- **Submission of peer-reviewed publications based on results**

Submission of results for peer-reviewed publications have been deferred for now, pending the outcome of 15a project (“**Extension of Assessing Measurement Variability of Lung Lesions in Patient Data Sets: Variability Under Clinical Workflow Conditions**”) as that project will more accurately reflect the variability encountered in clinical trials. When those results are prepared for publication, we will discuss the possibility of including the results from this project (2a).