LIRE Project
Intervention Pilot Testing Plan April - May 2013

1. LIRE study design overview

LIRE is a cluster randomized trial to study the impact of inserting a text description of age-specific prevalence of imaging findings among asymptomatic subjects, into lumbar spine imaging reports. We aim to study subsequent back-related interventions (narcotic prescriptions, subsequent imaging, injections, surgeries, etc) over the following 1 and 2 years. We are using a stepped wedge design and will randomize each clinic to begin implementing the intervention text at one of 5 pre-specified dates:

April 1, 2014
October 1, 2014
April 1, 2015
October 1, 2015
April 1, 2016

At clinics randomized to receive the intervention, the text will be inserted into the radiology report whenever one of the following CPT codes is generated: 72100, 72110, 72114, 72131, 72132, 72133, 72148, 72149, 72158, 72080 for patients 18 and older. Once the intervention is implemented at a given clinic, it will remain "on" indefinitely unless the study stopped early for reasons of safety or the health system wants to turn it "off" after the study period (April 2018) although this is not anticipated.

2. Pilot test implementation

The goal of this pilot implementation is to verify clinic eligibility for the LIRE study and to demonstrate successful insertion of the LIRE text into radiology reports. We are capturing data in Table 2 of this document that will be included in the UH2 progress report to NIH in our request for funding to transition to the UH3 phase. (So, this is important…!)

Your approach towards the pilot implementation needs to include the following:

- Assess clinic eligibility: for each clinic identified in Table 2, verify the questions in Table 1 and mark in Table 2 whether the site meets or does not meet the inclusion criteria or if you are unsure. Please provide comments if necessary.
- Proof of implementation of intervention text in Section 3 (Options 1 or 2): using dummy records, successfully demonstrate that for an eligible CPT code (and patient age $\geq$ 18) the text has been inserted into the radiology report. An example printout of the text would suffice to show this.
- Complete pilot implementation before **May 31, 2013**. This is a hard deadline as the transition report must be written and submitted to the NIH soon after this.
- Since we do not have IRB approval, this test needs to be conducted in a test environment or by using a dummy case.

Table 1. LIRE clinic inclusion criteria

Intervention implementation inclusion criteria to verify in pilot test
Required Inclusion Criteria
1. Can the intervention text be delivered based upon a specific CPT code (**Xray**: 72100, 72110, 72114, 72080; **CT:** 72131, 72132, 72133; **MR**: 72148, 72149, 72158)?
2. Can modality-specific (Xray, CT, MR) intervention text be inserted?
3. Can the intervention text be delivered based upon patient age (patients 18 and older)?
4. Can the intervention text be delivered to clinics on a scheduled basis at the 5 pre-specified dates listed above?
5. Through an electronic medical record or radiology information system data pull, can you verify that the text was inserted into a patient's record with an eligible imaging CPT code?
Must meet one of the following two criteria:
6.1 Can age range-specific (Section 3, Option 1) text be displayed in the radiology report depending on patient age?
6.2 Can tabular information by age (Section 3, Option 2) be displayed in the radiology report?

3. Intervention Pilot Testing Text

One of the following options would be inserted specific to imaging modality indicated by CPT code.

Option 1: Age-specific intervention text

"Comment: The following findings are so common in people without low back pain that while we report their presence, they must be interpreted with caution and in the context of the clinical situation (Reference – Jarvik et al, Spine 2001)
Findings: (prevalence in patients age *XX-YY* without low back pain), Disk degeneration (decreased T2 signal, height loss, bulge) (91%), Disk T2 – signal loss (83%), Disk height loss (56%), Disk bulge (64%), Disk protrusion (32%), Annular fissure (38%)"

Option 2: Age-tabulated intervention text

The following MRI findings are so common in people without low back pain that while we report their presence, they must be interpreted with caution and in the context of the clinical situation.

	Disk Degeneration	Disk T2 Signal Loss	Disk Height Loss	Disk Bulge	Disk Protrusion	Annular Fissure
21-30	A_1%	A_2%	A_3%	A_4%	A_5%	A_6%
31-40	B_1%	B_2%	B_3%	B_4%	B_5%	B_6%
41-50	C_1%	C_2%	C_3%	C_4%	C_5%	C_6%
51-60	D_1%	D_2%	D_3%	D_4%	D_5%	D_6%
61-70	E_1%	E_2%	E_3%	E_4%	E_5%	E_6%
71-80	F_1%	F_2%	F_3%	F_4%	F_5%	F_6%
81-90	G_1%	G_2%	G_3%	G_4%	G_5%	G_6%
≥91	H_1%	H_2%	H_3%	H_4%	H_5%	H_6%

4. <u>Group Health</u> clinics identified for the LIRE project. Please verify that the clinic meets the inclusions criteria listed in Table 1.

Table 2. Site eligibility evaluation.

#	Group Health Clinic Name	#PCPs	Meets Inclusion Criteria 1 - 5	Meets Inclusion Criteria 6.1 or 6.2		Reasons for Failure
1	Bellevue Medical Center	12	☐	☐	☐	
2	Burien Medical Center	15	☐	☐	☐	
3	Capitol Hill Campus	32	☐	☐	☐	
4	Downtown Seattle Medical Center	7	☐	☐	☐	
5	Everett Medical Center	20	☐	☐	☐	
6	Factoria Medical Center	12	☐	☐	☐	
7	Federal Way Medical Center	14	☐	☐	☐	
8	Kent Medical Center	7	☐	☐	☐	
9	Spokane-Lidgerwood Medical Center	13	☐	☐	☐	
10	Northgate Medical Center	31	☐	☐	☐	
11	Northshore Medical Center	8	☐	☐	☐	
12	Olympia Medical Center	41	☐	☐	☐	
13	Port Orchard Medical Center	18	☐	☐	☐	
14	Poulsbo Medical Center	8	☐	☐	☐	
15	Puyallup Medical Center	11	☐	☐	☐	
16	Rainier Medical Center	8	☐	☐	☐	
17	Redmond Medical Center	10	☐	☐	☐	
18	Renton Medical Center	13	☐	☐	☐	
19	Spokane-Riverfront Medical Center	17	☐	☐	☐	
20	Silverdale Medical Center	16	☐	☐	☐	
21	Spokane-South Hill Medical Center	5	☐	☐	☐	
22	Tacoma Medical Center	10	☐	☐	☐	
23	Tacoma South Medical Center	15	☐	☐	☐	
24	Spokane-Veradale Medical Center	8	☐	☐	☐	
25	Lynnwood Medical Center	15	☐	☐	☐	

Additional comments from pilot test implementation

<comments here>