VA Partnership to Increase Access to Lung Screening

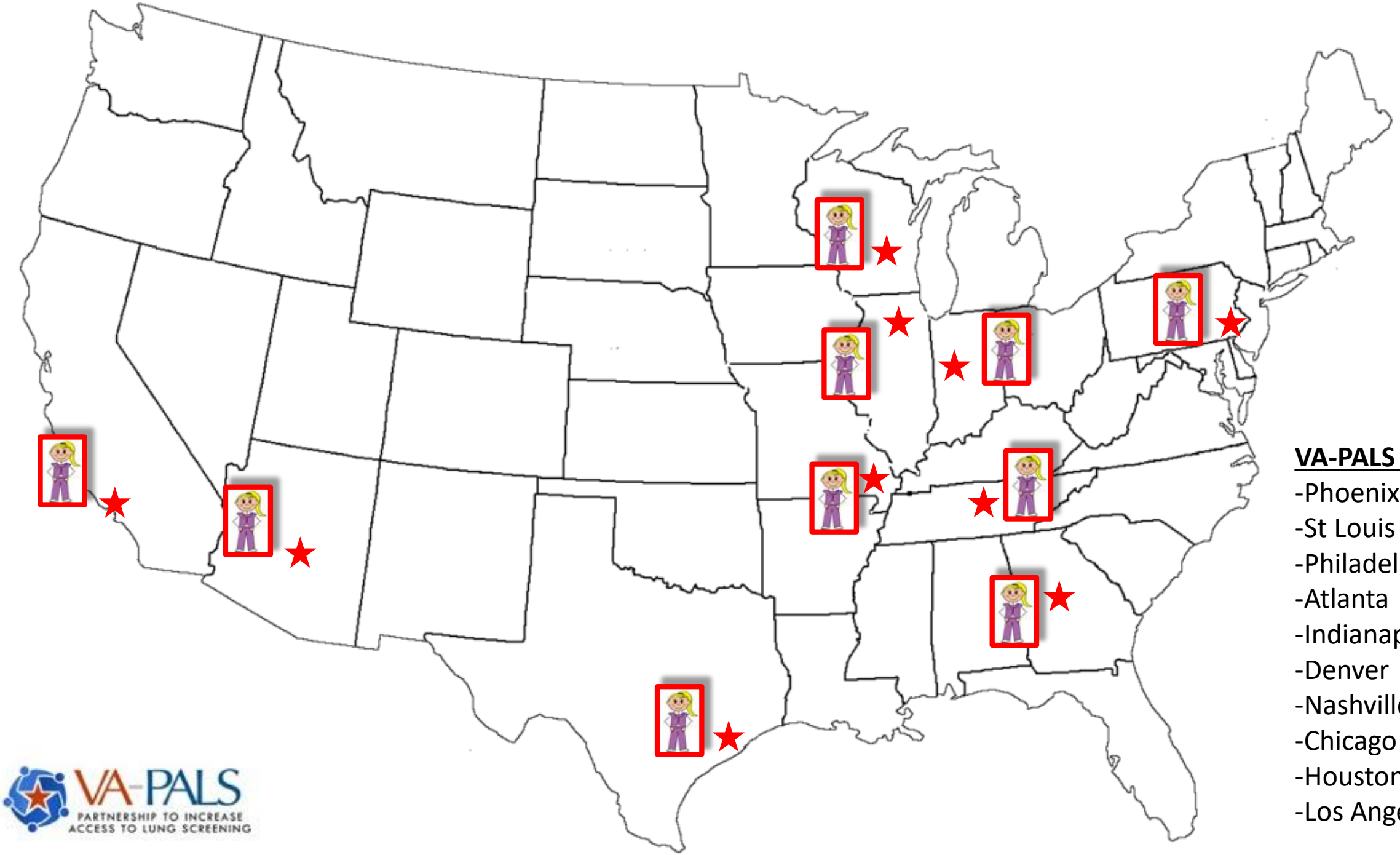
Drew Moghanaki, MD, MPH
Chief, Radiation Oncology
Atlanta Veterans Affairs Health Care System
Emory Winship Cancer Institute

Co-Principal Investigators

Claudia Henschke, PhD, MD
Mt Sinai Medical School, NY

Rick Avila, MS
Paraxial

VA-PALS
PARTNERSHIP TO INCREASE ACCESS TO LUNG SCREENING



VA-PALS Sites

-Phoenix
-St Louis
-Philadelphia
-Atlanta
-Indianapolis
-Denver
-Nashville
-Chicago (Hines)
-Houston
-Los Angeles

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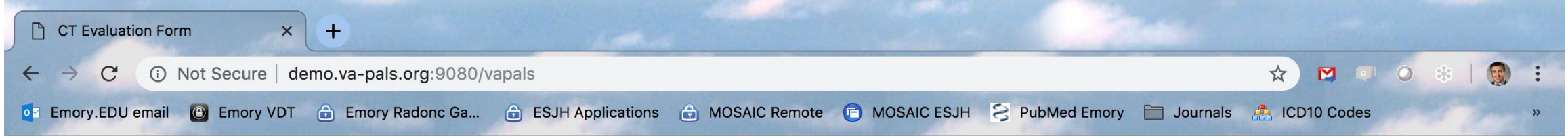


CT Evaluation Form

Scan | Nodules | Emphysema/Coronary Calcifications | Other Abnormalities | Impression & Follow Up

Scan information

*** CT study date**

03/24/2019

MM/DD/YYYY

Signing radiologist

*** Radiologist**

Clinical information

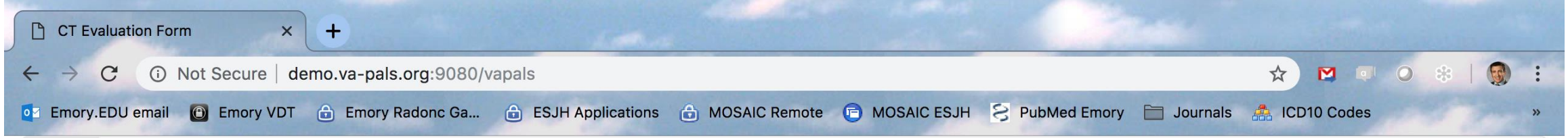
☐ Include in impression

☐ CT scan performed at outside institution

*** Type of exam**

○ Baseline ○ Annual repeat ○ Follow-up (not annual repeat)

Only select Baseline if there is no prior CT or there is a prior CT scan more than 3 years ago



Scan | Nodules | Emphysema/Coronary Calcifications | Other Abnormalities | Impression & Follow Up

*** Type of exam**

○ Baseline ○ Annual repeat ○ Follow-up (not annual repeat)

Only select Baseline if there is no prior CT or there is a prior CT scan more than 3 years ago

*** CT protocol**

○ Low-Dose CT ○ Standard CT ○ Limited CT

*** Reconstructed slice thickness (mm)**

-

CDTI (vol)

DLP

Size-specific dose estimates (SSDE)

*** Baseline CT**

MM/DD/YYYY

0 months since baseline

*** Most recent comparative study**

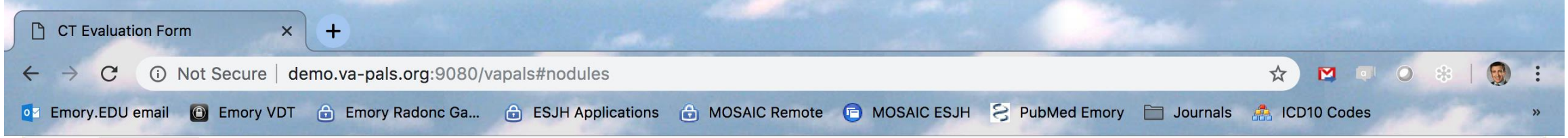
MM/DD/YYYY

*** Prior scans**

Nodules

READ before completing the Nodule Grid

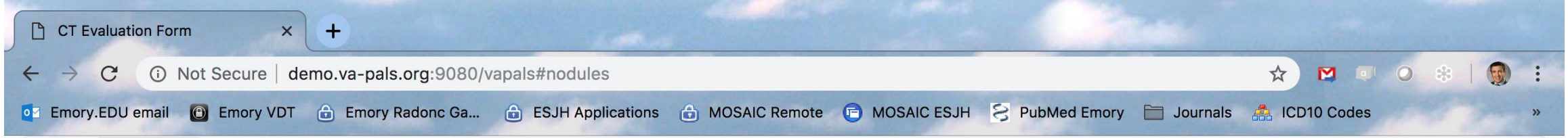
- BASELINE: Include all nodules >= 6.0 mm in average diameter. Others are OPTIONAL.
- ANNUAL REPEAT: include all NEW nodules >= 3.0 mm in average diameter.
- For BASELINE CT, all nodules are new unless there is a CT more than 3 years earlier.
- For BASELINE CT, the nodules will automatically be sorted with the largest non-calcified nodule coming first.



Scan | Nodules | Emphysema/Coronary Calcifications | Other Abnormalities | Impression & Follow Up

+ Add nodule

Nodule ID	Nodule 1
* Is it new?	-
* Endobronchial?	-
* Most likely location?	-
* Nodule seen in series	
* Nodule seen in images	-
* Nodule status	-
* Nodule consistency	-
* Length (mm)	
* Maximum width (mm)	
Mean diameter (mm)	-
Height (mm)	
Volume (mm^3)	Calculate



Scan | Nodules | Emphysema/Coronary Calcifications | Other Abnormalities | Impression & Follow Up

* **Solid comp. of part-solid**	lengtl x width
Solid mean diameter(mm) ⓘ	-
Smooth edges ⓘ	☐ Yes
Calcifications	☐ Yes
Index Nodule ⓘ	☐
Spiculated	☐ Yes
Distance from the costal pleura (mm)? ⓘ	
Action ⓘ	-
Comment ⓘ	
Pathologic diagnosis ⓘ	-For Pathology Use Only-

+ Add nodule

☐ Additional non-calcified nodules

☐ Additional calcified nodules

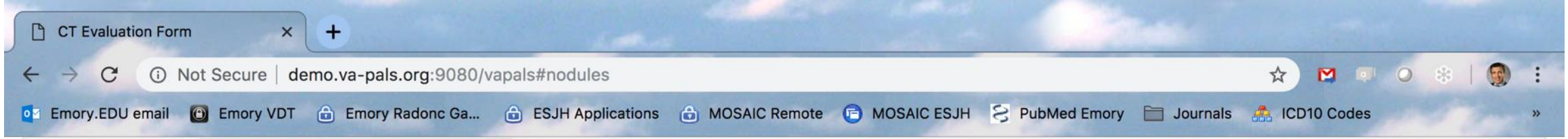
Emphysema/Coronary Calcifications

Emphysema ⓘ

○ Not visible ○ None ○ Mild ○ Moderate ○ Severe

Coronary calcifications

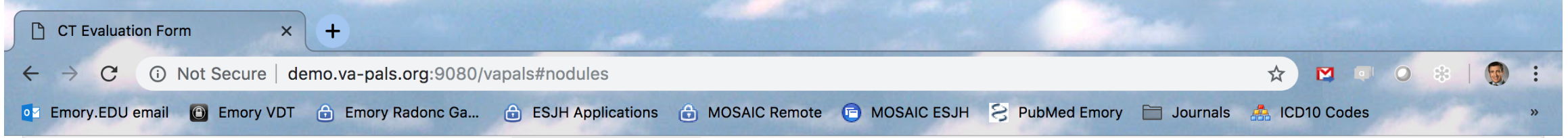
○ None ○ Mild ○ Moderate ○ Severe



Scan | Nodules | Emphysema/Coronary Calcifications | Other Abnormalities | Impression & Follow Up

Other Abnormalities

- Pulmonary
- Pleural or pleural-related
- Cardiac and aortic
- Neck and mediastinal
- Breast
- Bone
- Abdominal



Scan | Nodules | Emphysema/Coronary Calcifications | Other Abnormalities | Impression & Follow Up

Impression

Annual repeat and follow-up CT scans should utilize the same low-dose protocol used for baseline low-dose CT scans.

*** Nodules**

- ○ No evidence of nodules. Follow-up as recommended.
- ○ Nodule(s) as described. Consistent with old granulomatous disease. Follow-up as recommended.
- ○ Nodule(s) unchanged, as described. Follow-up as recommended.
- ○ Nodule(s) as described. Follow-up as recommended.

Other Findings

- ○ No other significant abnormalities.
- ○ Other abnormalities and suggested follow-up as described above.

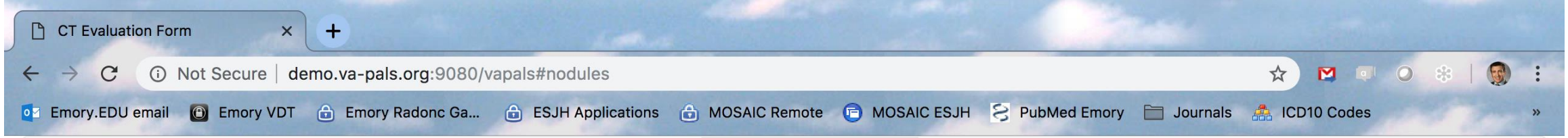
Impression remarks

Follow Up select one or more

LDCT follow up:

☐ Annual repeat ☐ Now ☐ 1 month ☐ 3 months ☐ 6 months ☐ Other

Approximate follow-up date:



Scan | Nodules | Emphysema/Coronary Calcifications | Other Abnormalities | Impression & Follow Up

MM/DD/YYYY

Other follow up:

☐ Antibiotics ☐ Contrast CT ☐ PET ☐ Percutaneous biopsy ☐ Bronchoscpy ☐ Pulmonary consultation ☐ Refer to tumor board ☐ No other further follow-up ☐ Other

*** Specify**

specify

Lung-RADS

*** Category**

- ○ Not applicable
- ○ 0 (incomplete)
- ○ 1 (negative)
- ○ 2 (benign appearance or behavior)
- ○ 3 (probably benign)
- ○ 4A (suspicious)
- ○ 4B (suspicious)
- ○ 4X (suspicious)

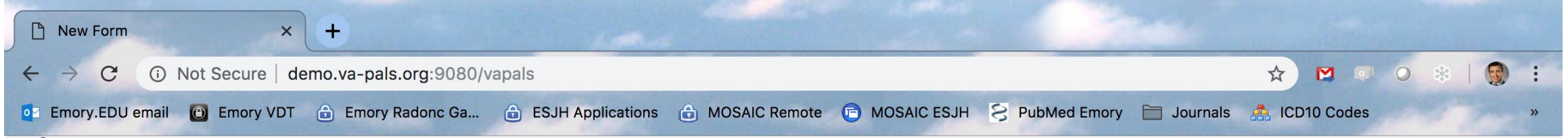
Modifiers

- ☐ S - clinically significant or potentially clinically significant findings (non lung cancer)
- ☐ C - prior diagnosis of lung cancer who return to screening

Save for Later | Submit | Delete

Submit feedback

LUNGRADS 2019.03.12



VAPALS-ELCAP
PARTNERSHIP TO INCREASE ACCESS TO LUNG SCREENING

Home Reports

New Form

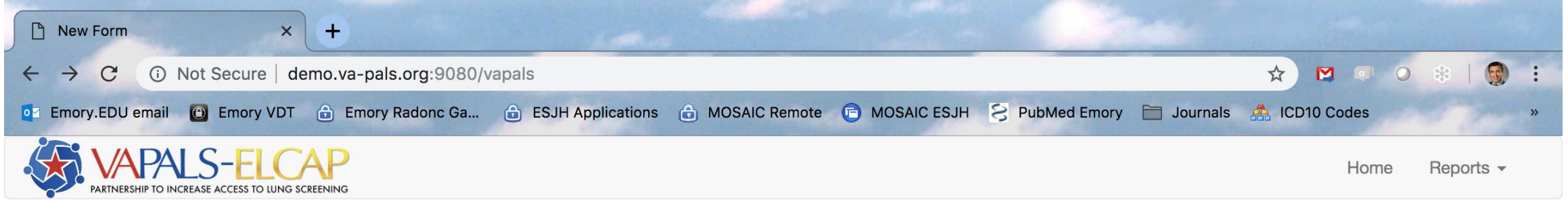
Please select the type of form to create

Background

Create New Form

Submit feedback

2019.03.12



VAPALS-ELCAP
PARTNERSHIP TO INCREASE ACCESS TO LUNG SCREENING

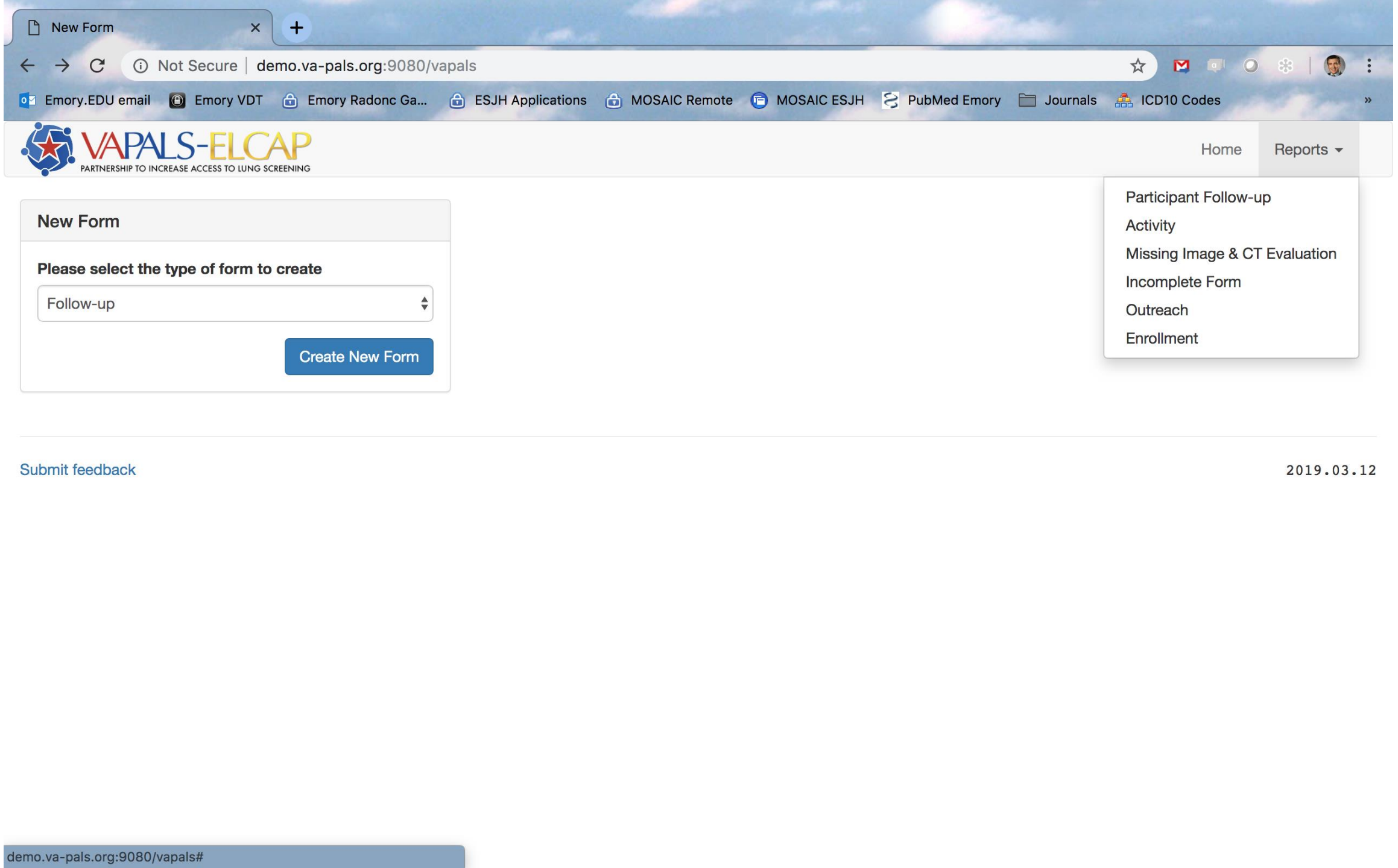
Home Reports

New Form

- Background
- CT Evaluation
- ✓ Follow-up
- Biopsy
- Intervention
- PET Evaluation

Submit feedback

2019.03.12


New Form
Not Secure | demo.va-pals.org:9080/vapals
Emory.EDU email
Emory VDT
Emory Radonc Ga...
ESJH Applications
MOSAIC Remote
MOSAIC ESJH
PubMed Emory
Journals
ICD10 Codes
VAPALS-ELCAP
PARTNERSHIP TO INCREASE ACCESS TO LUNG SCREENING
Home
Reports
Participant Follow-up
Activity
Missing Image & CT Evaluation
Incomplete Form
Outreach
Enrollment
New Form
Please select the type of form to create
Follow-up
Create New Form
Submit feedback
2019.03.12
demo.va-pals.org:9080/vapals#

Progress since July 2017

Software Development

Open source platform

OSEHRA calls & summit

Radiologist Training

- Online case-based teaching
- Site visits and QA
- CME programs (Free: ACS & MeVIs)

Navigator Training

@ Mt Sinai (I-ELCAP)

@ Monthly roundtable calls

@ Summits & conferences

Implementation Assessment

VA Quality Scholars Program

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Opportunities to Collaborate

VAPALS-ELCAP is An Emerging Global Standard

- IASLC: ELIC
- ASCO
- NIH: The Cancer Imaging Archive (TCIA)
- VA-NIH-DOD: APOLLO project

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IASLC SUCCESSFULLY PILOTS EARLY LUNG IMAGING CONFEDERATION PROJECT

Becky Bunn, MSc
IASLC Public Relations Manager
Becky.Bunn@IASLC.org | 720-325-2946

Adam Mohrbacher
IASLC Digital and Social Media Manager
Adam.Mohrbacher@IASLC.org| 720-598-1943

IASLC Successfully Pilots Early Lung Imaging Confederation Project

Global lung cancer leader explores capabilities of deep learning and AI to improve screening and save lives

DENVER – Evidence proves that screening saves lives, with screening for breast, colon, prostate and cervical cancers, for example, being accepted in many parts of the world as a routine part of medical care. While generally caught in the later stages, lung cancer survival curves show that the has much better outcomes when it is caught early, so developing a lung cancer screening protocol could lead to dramatic improvements in patient care and ultimately reductions in mortality. And yet, despite lung cancer killing more people than breast, prostate and colon cancers combined, there is no global consensus or standard for lung cancer screening.

The ASCO Post

Low-Dose CT Lung Screening: New Developments Support Increased Quality, More Data, Deep Learning

By Caroline McNeil

December 25, 2018

Two years ago, Rick Avila, MS, Chief Executive Officer (CEO) of Accumetra, LLC, was using rolls of Scotch tape as a research tool. The Scotch tape was a phantom, or reference object, and his company was working with computed tomography (CT) lung screening sites around the world to determine the best CT scanners and scanner settings to detect and measure small lung nodules.

Clinical sites taking part in the project could submit scans of identical rolls of Scotch tape to a cloud-based website and, within minutes, receive feedback on the quality of their CT scans and the accuracy of measurements taken with their scans. The sites could then recalibrate their scanners if necessary and send a new scan back to Accumetra for verification of proper quantitative performance.

That was the first step. Next, working on a pilot project with the Quantitative Imaging Biomarkers Alliance (QIBA) organized by the Radiological Society of North America (RSNA) and with the support of the Prevent Cancer Foundation, Accumetra distributed a much more sophisticated phantom, called the CTLX1, to 65 screening sites around the world. The new phantom is especially useful for calibrating scanners that must detect and measure tiny objects—a 6-mm lung nodule, for instance.

More Opportunities to Collaborate

Anyone can participate

- Software demo site: http://demo.va-pals.org:9080/vapals
- Weekly technical calls: https://www.osehra.org/groups/vapals-elcap-open-source-project-group
- Annual OSEHRA summit: https://www.osehra.org/content/open-source-ehr-summits-workshops

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VAPALS-ELCAP Open Source Project Group

Subscribe to group

Early Lung Cancer Screening, when used correctly, is a cost effective way to reduce lung cancer treatment costs and save lives. I-ELCAP has developed their own software to track the information needed for their research. This project group will develop an interface between VistA and the I-ELCAP software package, and then build a VistA version of the I-ELCAP software to improve performance and integration with existing clinical work-flows.

Paraxial

Sponsor

The project group will lead an open, collaborative development effort, and provide an opportunity for community participation in the software development life cycle. The resulting code will be licensed as open source under the Apache License Version 2.0 and placed in the OSEHRA repository.

Group Email: va-pals@groups.osehra.org

Chair(s): Linda Yaw

Recent activity in this group

Kathy Ice posted No VAPALS-ELCAP Meeting on March 20

in the VAPALS-ELCAP Open Source Project Group group

5 days ago

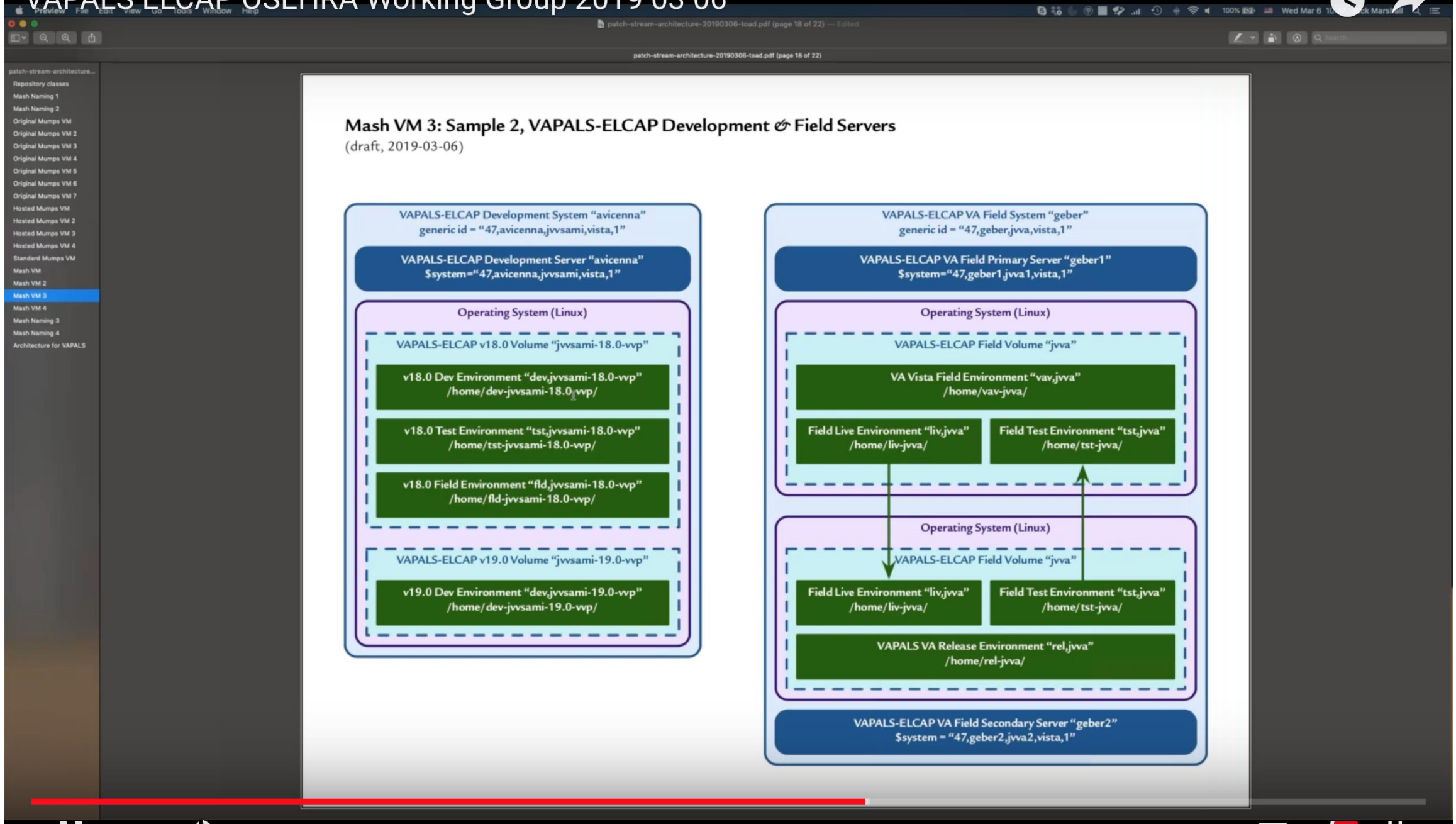
Kathy Ice posted No VAPALS-ELCAP Meeting This Week

in the VAPALS-ELCAP Open Source Project Group group

12 days ago

18 days ago

VAPALS ELCAP OSEHRA Working Group 2019 03 06



37:02 / 1:01:55

And Even More Opportunities to Collaborate

Further Improvements

- Who else is at risk?
- How to better automate data pulls from HER?
- Minimizing benign biopsies
- Optimizing CT reports - dictation vs typing
- Optimizing implementation and training new programs

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Once VAPALS-ELCAP is running

it can reach 2.78 M at risk in the VA
and millions more around the world

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