Digital Pathology in Community Practice

Trying to Bring Water for Elephants

Visions 2009

Eric F. Glassy, MD

Wednesday, September 16, 2009
Digital Pathology in Community Practice

How to Bring Water for Elephants

Wednesday, September 16, 2009
Full Name: Eric F. Glassy  Case No: 143

DOB: 2/28/50  DOD: 6/11/2033

Place of Birth: Tacoma, Washington

Place of Death: in bed, quietly at home

Height: 6'1"  Weight: 189  Sex: M  Race: Caucasian

Occupation: APMG pathologist

Funeral Director: self

Comments: author, graphics, software, CAP married, 2 kids, 2 grandkids

ATTACH TO TOE
Horizon

- our WSI setup
- current uses
- delivering the water
Private Practice Group

- 31 Board Certified pathologists
- subspecialty expertise
- 11 service locations in 4 counties in southern California
- pathologist-owned reference lab
- 28 year history of outpatient pathology practice
- specializing in and exclusively performing anatomic pathology
ScanScope XT
- part of IHC department
- no APLIS interface
Hardware Network

- ScanScope
- Workstation
- Image Server & Web Server
- Storage
- Administration
- Firewall
- Internet
- Clients

Capture ➔ Store ➔ Distribute ➔ View
Virtual IHC
Image Analysis

Digital IHC: Breast Markers

HER2 Score: 2+
3+ Percentage: 3.0%
2+ Percentage: 42.5%
1+ Percentage: 51.0%
0 Percentage: 3.5%

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Client Slide Reviews

- hepatologist
- GI specialist

Alfred Lui, MD
review case with patient
Tumor Conference

The Art of Storytelling
After the glow of ownership fades...

OFIs
(Opportunities for Improvement)
Why It Succeeded

- ease of use
- overwhelmingly positive response to WSI
- computer savvy pathologists
- minimal workflow disruption
Why It Succeeded

- combine still digital images, websites and WSI
- zoom/coordinates captured
Why It Succeeded

- conference worklist
- case summary

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Case Summary

AM (74y M)

Right gluteal mass:

Liposarcoma, well differentitated lipoma-like

22 cm
  focally intramuscular
  focally involving resection margin
Misfires

- limitation of web viewer
- Flash issues
- annotation issues
- security and cookies
- ease of use issues
Misfires

- Mac and PC compatibility issues
  - web-based for Mac
  - not targeted at ImageScope users
- bookmarking database
Misfires

- getting slides to Pathology Inc.
- getting WSI scans to pathologists
  - separate storage option not feasible
    - TAT deadlines
    - limited FTEs
- data entry into Spectrum

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Tough to Bring Water to Elephants
Time and Personnel

- no dedicated FTE
- Spectrum data input
Take Two
Take Two
Disintermediation

remove the middle man
Disintermediation

Bring the Elephant to the Water
Workflow
Workflow

Remote Pathologist

PathLabel Software

Pathology Inc.
Workflow

Remote Pathologist

PathLabel Software  email label file  print worksheet and send glass slides

Pathology Inc.

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Workflow

Remote Pathologist

PathLabel Software

email label file

print worksheet and send glass slides

load file and print labels

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Workflow

Remote Pathologist

- PathLabel Software
- Load file and print labels
- Scan slides
- Email completion notice to remote client
- Email label file
- Print worksheet and send glass slides

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Workflow

Remote Pathologist

PathLabel Software
load file and print labels

email label file
scan slides
demail completion notice to remote client

slides available for viewing

print worksheet and send glass slides

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Workflow

Remote Pathologist

PathLabel Software

email label file

print worksheet and send glass slides

load file and print labels

scan slides

email completion notice to remote client

slides available for viewing

barcoded slides returned

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PathLabel

- create 2D barcodes (datamatrix) for Aperio system
Kickoff Promotion

Whole Slide Imaging Initiative

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Product Evolution
Additional Features
Web Page Sharing
Consultations

- notification
- dictation
- billing
Utilities

- tiny URL
- SIS file creation
Delivery Methods

- PDF
- SIS files
- HTML email
- Web Page
Demo
Video Demo

Glass Slide Label Printing & Data Management

PathLabel
Designed & Programmed by Eric F. Glassy, MD

L08-12345-A
AFP
Patient, John Q.
L08-12345-A
AFP
Patient, John Q.
L08-12345-A
Alph1 antidromo

Create Labels
Utilities
PathIP

Plugins
Trol URL Plug-In 2.0.3
Trol File Plug-In 4.3.1
PrinterSwitch 1.7.1.0

SMTMP Pro v.4.1.1
Registered for Pathology Inc. for a
Unlimited Developer's License.

Program version 1.9 beta

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No HER2/new slide for this specimen.

**EN**

Score: 0 of 8

Relevant

Analysis done on invasive component

**PR**

Score: 5

Positive

Used computer-assisted image analysis

**Ki67**

Score: 40.981%

Unfavorable

Used computer-assisted image analysis

The percent positivity was performed on the invasive component.
Video Demo
Create Web Pages
“SecondSlide improves turnaround time for consultations by eliminating glass slide logistics”
— Ivan Korni, MD

Free Digital Slide Sharing Service for Pathology

SecondSlide makes slide sharing easy:
- Share slides with anyone you choose, regardless of geographical location
- Improve turnaround time
- Eliminate glass slide logistics
- Provide pathology services to remote hospitals
- Gain access to subspecialty expertise

SecondSlide Applications

Clinical

Research

Education

Please contact us with questions or Sign Up for A Free Trial
Planned Enhancements
Summary

- WSI in private practice
- Distermediation
- Expand WSI delivery
Surf’s Up!
Thanks

- Jerry Simons
- Carla Mezquita
- Sherri Heffner
- Jie Wu

IT department at Pathology Inc.