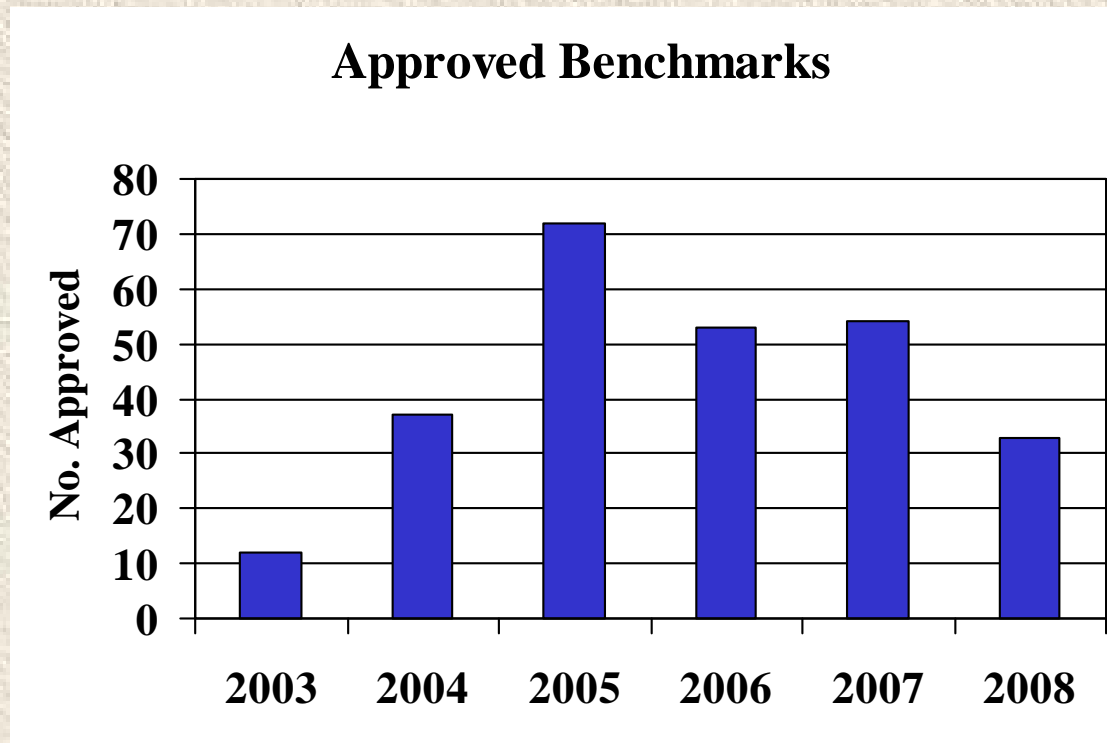


# **QARC ATC Report**

## **3 October 2008**

# IMRT Benchmark

- 126 QARC Benchmarks approved (9/29/08)
- 145 approved with RPC phantom + Questionnaire
- 170 approved RPC phantom without questionnaire



# **3D Conformal Benchmark Submission/Approval Summary**

- 93 approved, 4 approved by RPC
- 81 submitted electronically
- Problems: brainstem contour, digital data issues, high dose outside PTV
- All submissions to be shared with RPC for use in RPC site visits

## 3D CSI and Mantle Benchmarks

	CSI	Mantle
Approved	12	11
Electronic	10	11

# Protons and NCI

Revised and expanded proton questionnaire developed  
(M.Urie, J. Deye, and M. Gillin)

Completed proton therapy questionnaires received and  
approved from

MDA

MGH

LLUMC

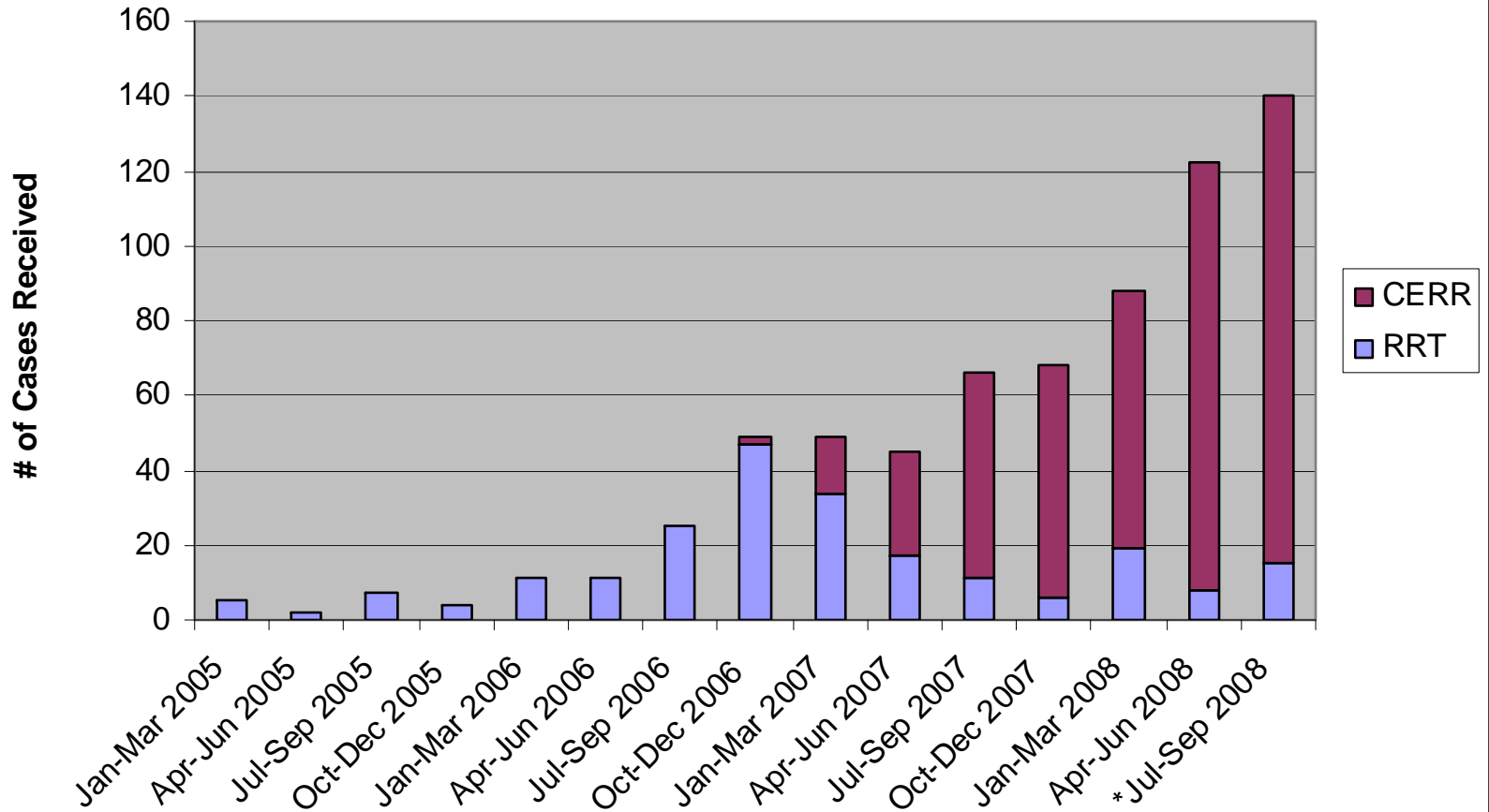
UFL

# Digital RT Data

## Current Accrual (9/29/08)

<b>Protocol</b>	<b>Number of Cases</b>
ACNS0121	47
ACNS0126	6
ACNS0331	50
ACOSOG Z4032	31
CALGB 80101	26
miscellaneous studies	532
Total of 692 cases from more than 190 institutions and more than 50 studies	

## QARC Digital RT Data



## Use of CERR at QARC

- 470 protocol cases and 170 benchmark cases have been imported into CERR.
- Studies from 13 planning systems have been successfully imported into CERR.
- QARC staff are able to access CERR remotely by connecting to a terminal server through a web browser (network concurrent license is required for Matlab).



# Use of CERR at QARC

**Full data sets from 13 planning systems have been successfully imported into CERR**

<b>DICOM RT</b>	<b>RTOG</b>
Eclipse	Pinnacle
Variseed	XiO
Plato	Theraplan Plus
XiO	Corvus
Oncentra Masterplan	UMPlan
Helax	
IsoGray	
Konrad	
Memorial Planning System	

# QARC Remote Review

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- Secure Log-in via a VPN
- Remote Reviewer is authenticated
- Remote Reviewer is granted access via their Internet Browser to a QARC terminal server
- Remote Reviewer logs into MAX and is recognized as a Study Reviewer
- The MAX Database optimizes the interface for that Reviewer. They are presented with a list of their cases for review
- Remote Reviewers can access the Diagnostic Imaging and digital RT data viewed in CERR. They can also see any other e-materials (for example, scanned diagnostic imaging reports)
- Currently in use for QARC staff
- Currently being piloted with Remote Reviewers

Press SPACEBAR or ENTER to activate and use this control

12:00:13 PM

Wednesday, March 2

# Login



Username

Password

Domain

OK

Cancel

The image shows a remote desktop session of a Windows XP desktop. The desktop background is a light blue gradient. On the left side, there is a vertical column of icons: Recycle Bin, MATLAB R2006a, Windows Explorer, Run TaskManager, WinZip, Internet Explorer, Microsoft Office Ex..., Microsoft Office Out..., Microsoft Office P..., and Microsoft Office W... In the center of the desktop, there is a dark blue icon labeled 'QARC Database 2003'. At the bottom, the Windows taskbar is visible, featuring the Start button, several open application icons, and a system tray on the right showing the time as 12:04 PM.

Connected to qarc-remote.qarc.org

# Review Worklist

Current User: Fran

Pending

Reviewed

All

Current Assignee

JeffM

Status	QARC Number	Coop	Actual Protocol	Case No.	Comments
Pending	BAYACN31AN*H	COG	ACNS0331	759715	
Pending	HAWACN31AM*H	COG	ACNS0331	746963	
Pending	STOACN31AC*H	COG	ACNS0331	766315	Need copies of revised whole brain data and films (
Pending	VGHACN31AN*H	COG	ACNS0331	767056	Final Review Pending.

Total Number of Patients 5

EXIT

RETURN





Data Status DS 3C Review Data Clinical 1 Clinical 2 Mail eMaterials Intervention Logs Benchmark Remote Rev.

QARC Number **ASCACN31AJ\*H** Principal Institution **ASC** RT Dept **ASC** Group Status **NE**  
 Coop Group **COG**  
 Protocol **ACN31** Regimen **224** Actual Protocol **ACNS0331**  
 Case Number **774919** Accession No. **231** Record Created **10/23/2007**  
 Date of Birth **02/06/1992** On Study Age **15** **8** M/F: **M**  
 On Study Date **10/22/2007** RT Summary Due Date **12/16/2007** Radiation Oncologist: **Brown**  
 First RT Date **10/25/2007** Data Final Date  Number Of Months Post Tx End: **0**  
 RT Conditional **N** Received On-TX **Y** Data Received within specified period:   
 Interventional Review Impact: **Intervention**

Number	Target Volume	On TX	#Rev	Review	Status	Comments
1	Brain	Y		F	P	
1T1	Post Fossa	E		A	P	per institution, revisions were made (C2-C3 blocked)
2	Upper Spine	Y		A	P	
Total Number of Target Volumes						<b>4</b>

Comments **Need copies of revised data and films for brain and spine volumes (if done), need copies of revis**

Performance Evaluation  /  RT Status **D** IMRT  Brachy

All Credentials Met:  3D **Y** SRS

DX Status **D**



**QARC Number:**  **First Name:**  **Last Name:**   
**Case Number:**  **Coop Group:**  **Protocol:**  **Prin Inst:**   
**Accession Number:**  **First RT Date:**  **On Study Date:**

**Diagnostic Intra-QARC Comments:**

Note: Keep Event and Study Name Lengths within | guidelines | to insure proper fit in rpt qryDiagnostic Crosstab fields

Event	Order	Event Date	Interval	Comments
ACN31 Pre op	10			

Record: 1 of 4

Study	H/A	Study Date	Revwd	Order	Image Type	CD	Comments	Form
Cranial MR	<input type="checkbox"/>	09/24/2007	<input checked="" type="checkbox"/>	10	DICOM	1		<input type="checkbox"/>
Other cranial MR	<input type="checkbox"/>		<input type="checkbox"/>					<input type="checkbox"/>
Spine MR	<input type="checkbox"/>	09/27/2007	<input checked="" type="checkbox"/>	20	DICOM	2	cervical images	<input type="checkbox"/>
Other spine MR 1	<input type="checkbox"/>	09/27/2007	<input checked="" type="checkbox"/>	23	DICOM	2	thoracic images	<input type="checkbox"/>
Other spine MR	<input type="checkbox"/>	09/27/2007	<input checked="" type="checkbox"/>	25	DICOM	2	lumbar images	<input type="checkbox"/>

Record: 1 of 7

There is 1 Dicommunicator Import Form for this patient. Click [View Form] to see it.

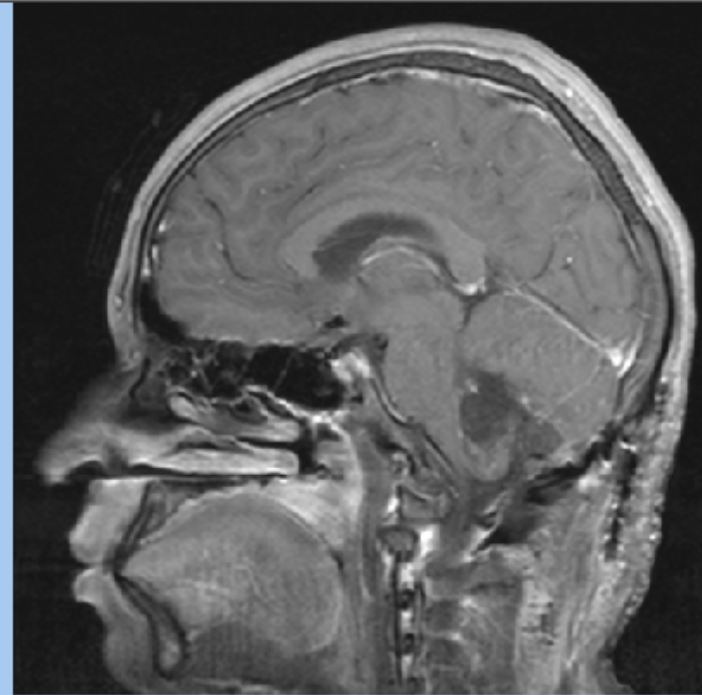
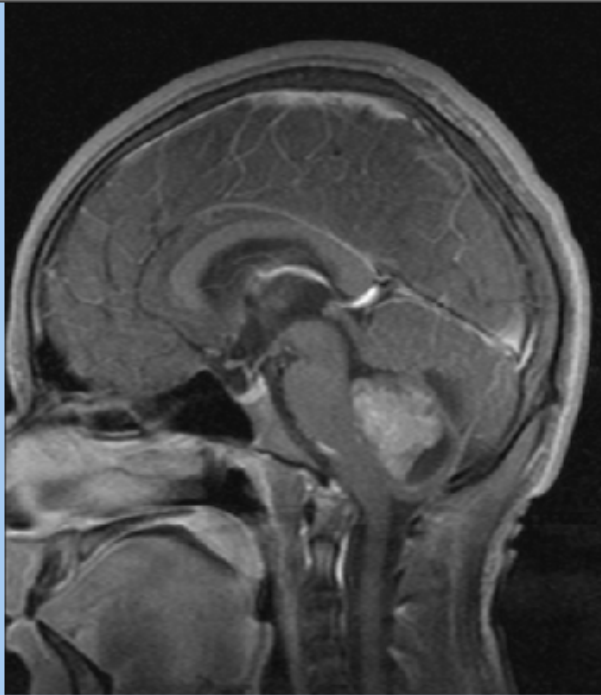


Image Activity Attributes Annotations

**Active Tool**

- Scroll
- Win/Lev
- Select
- Zoom
- Flip/Rotate
- Measure...

Coop Group: COG  
Protocol: ACN31  
Case Number: 774919  
Study Date: 9/24/2007  
Preset: Unspecified  
Format: 1:1

**QARC Number**  
ASCACN31AJ\*H  
Slice Thickness: 5  
Study: MRI BRAIN WITH AND WITHOUT CONTRAST

**Series Navigation**  
es: 10/10 T1 SAG FS POS

**Image Navigation**  
Image 10 of 19

Image Activity Attributes Annotations

**Active Tool**

- Scroll
- Win/Lev
- Select
- Zoom
- Flip/Rotate
- Measure...

Coop Group: COG  
Protocol: ACN31  
Case Number: 774919  
Study Date: 9/29/2007  
Preset: Unspecified  
Format: 1:1

**QARC Number**  
ASCACN31AJ\*H  
Slice Thickness: 5  
Study Navigation: MR Brain w/ & w/o Contrast

**Series Navigation**  
es: 12/12 T1 Fat Sat Sag Pt

**Image Navigation**  
Image 9 of 19

Attributes Left Side Viewer

Help

Attributes Right Side Viewer

Return

Pre-Op

Post-Op





Data Status DS 3C Review Data Clinical 1 Clinical 2 Mail **eMaterials** Intervention Logs Benchmark Remote Rev.

QARC Number **ASCACN31AJ\*H** Principal Institution **ASC** RT Dept **ASC** Group Status **NE**  
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Total Number of Target Volumes						<b>4</b>

Comments **Need copies of revised data and films for brain and spine volumes (if done), need copies of revis**

Performance Evaluation  /  RT Status **D** IMRT  Brachy   
 All Credentials Met:  3D **Y** SRS   
 DX Status **D**

Exit Diagnostic Return



QARC Number: ASCACN31AJ\*H

1 Item(s) Exist

Category	Target Volume	Data Type	Description	Date Recv'd	Series
Digital RT		Digital RT	isodoses/DVH's for each phase and composite isodoses/DVH's	11-13-07	<input type="checkbox"/>
COG\ACN31c774919					
Comment: isodose distributions and DVH data for each phase and composite isodose distributions and DVH					

View File

**Not For Clinical Use**

CT window: --Manual--

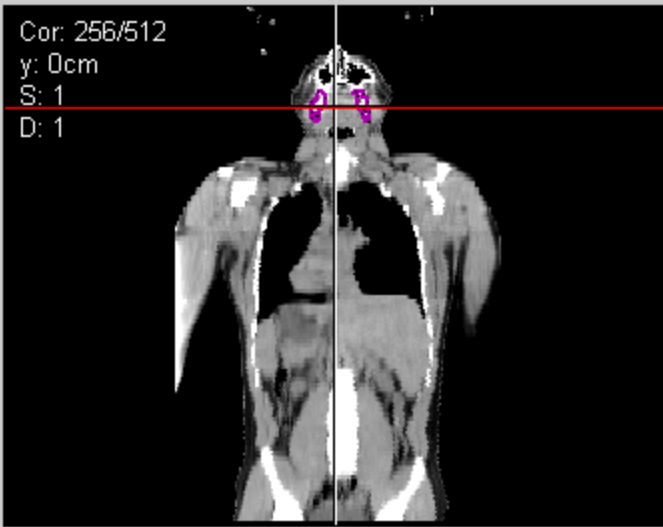
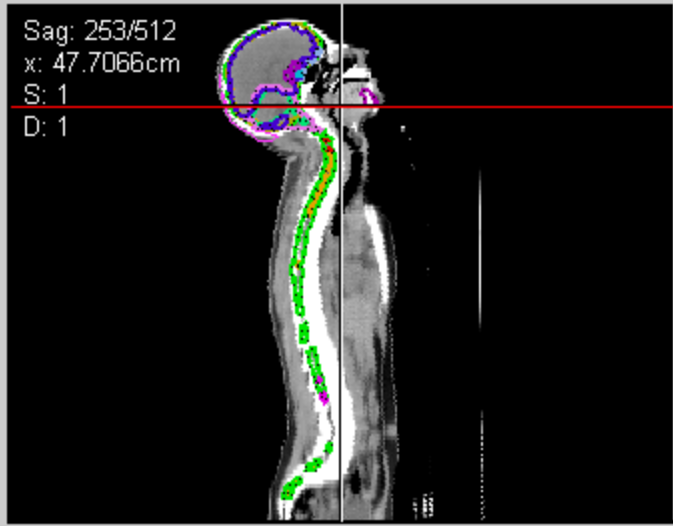
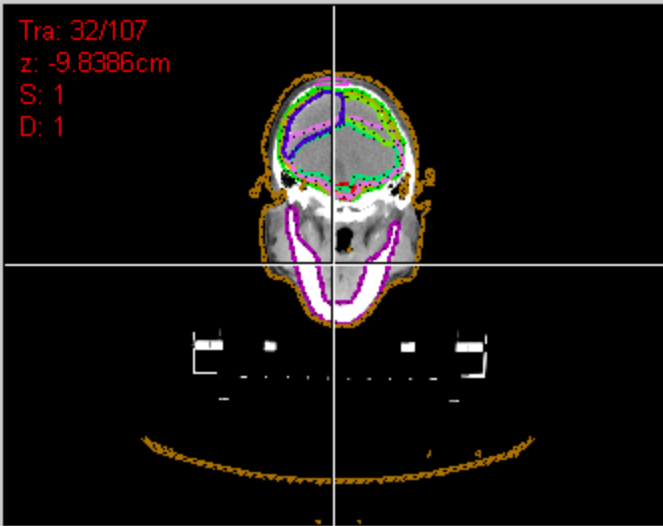
Center: 0      Width: 300

S+    S-     Ruler

Dose

Scan

10.9 10.9



- Legend**
- Cranialspinal axis CTV110 Gy
  - Cranialspinal axis PTV1
  - C spine volume
  - Mandible
  - Brain
  - cribriform plate
  - T-L gap
  - skin
  - CTVpf
  - Boost PTV
  - RSB
  - LSB
  - hypothalamus/pituitary
  - Optic Chiasm

Command:

# Year 10 Plans - Credentialing

- Web-based facility information form that is common for all the QA groups to include key personnel and contact information that the sites themselves could keep updated
- Development of IGRT guidelines, forms, and credentialing that will be accepted by all groups and QA centers for participation in protocols requiring, or allowing, IGRT
- Continue collaboration with RPC on proton credentialing

# **Year 10 Plans – Digital Data/Remote Review**

- Anticipate increased volume of digital data
- Validation of CERR
- Develop/implement web-based review

# Year 10 Plans – Other Initiatives

- VIEW
- caBIG

# VIEW Update

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- VIEW Meeting in Chicago, June 2008
- IT, Quality and Standards Sub-committees met to establish committee membership and objectives
- First VIEW protocol, NCCTG N0723 – Marvel Trial opening October 1st. A Phase III Second-Line Therapy in Patients With Advanced Non-Small Cell Lung Cancer (NSCLC) Randomized to Pemetrexed Versus Erlotinib
- QARC will track and acquire baseline and follow-up imaging; ACRIN will perform QA. Duplicate archive established at QARC and ACRIN

## **VIEW Aims**

- Develop a standardized approach to credentialing facilities that perform imaging exams according to the VIEW standards.
- Assist clinical trial organizations in the development of an imaging charter that is acceptable to the trial sponsors and FDA.
- Advance the science of imaging biomarker development: explore alternative imaging analysis, alternative imaging approaches, and establish databases that can be mined for testing new approaches.