

Quality Assurance Review Center

- ◆ Located in Providence, Rhode Island. Organized in 1980
- ◆ Funded Independently by the National Cancer Institute
- ◆ Founded by Dr. Arvin Glicksman
- ◆ Affiliated with University of Massachusetts Medical School since 1996
- ◆ Dr. T. J. FitzGerald, QARC Director since 1998

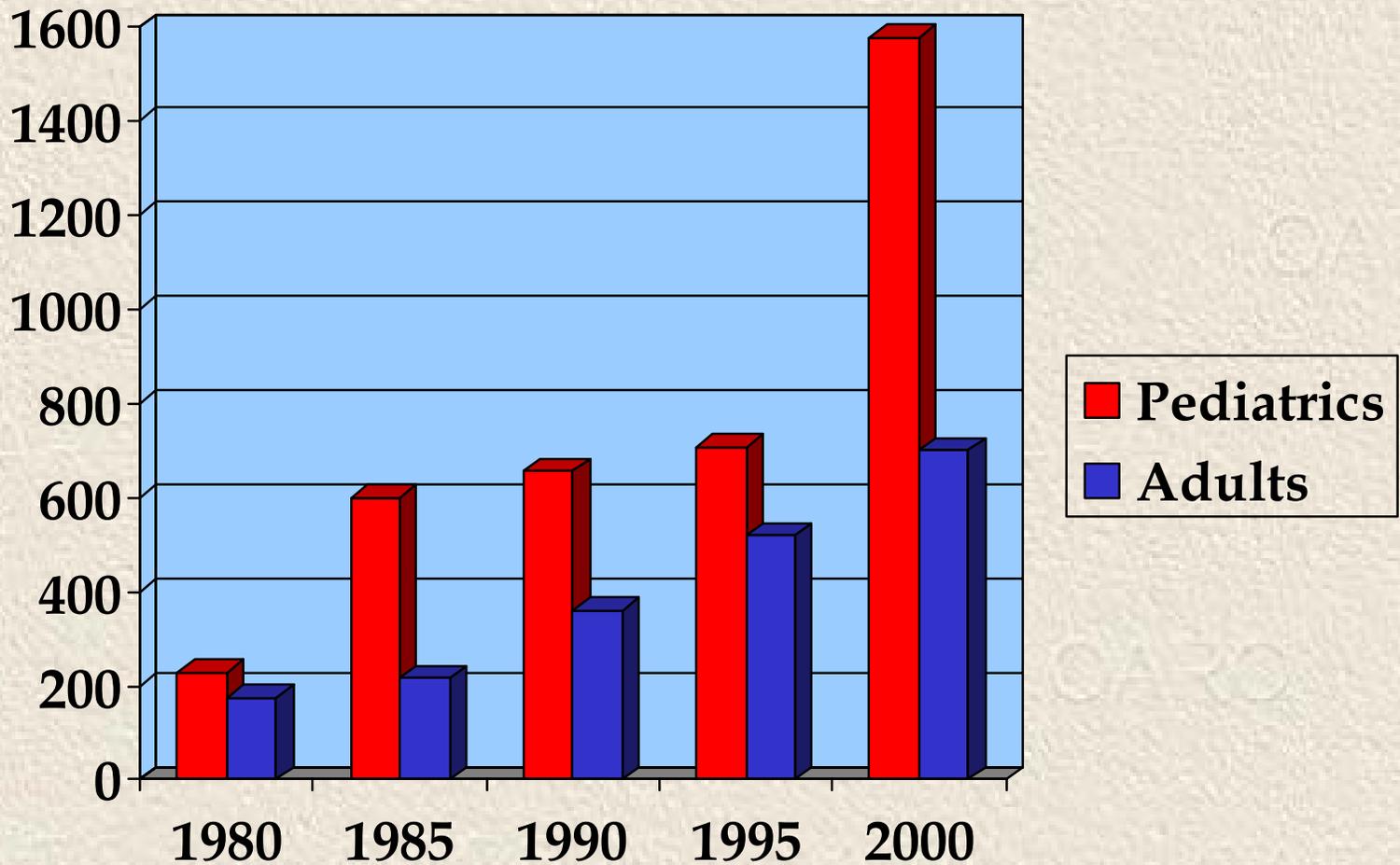
Research Groups

- ◆ American College of Surgeons - ACOSOG
- ◆ Cancer and Leukemia Group B – CALGB
- ◆ Children's Oncology Group – COG
- ◆ Eastern Cooperative Oncology Group - ECOG
- ◆ Pediatric Brain Tumor Consortium – PBTC
- ◆ Sanofi-Synthelabo, Inc. – HeadSTART Trial

Group Interactions

- ◆ Program tailored to each Group
- ◆ Notice of new patients
- ◆ Transfer of QARC data
- ◆ Flexibility possible with sophisticated relational database and flexible, knowledgeable technology support

QARC Case Accrual



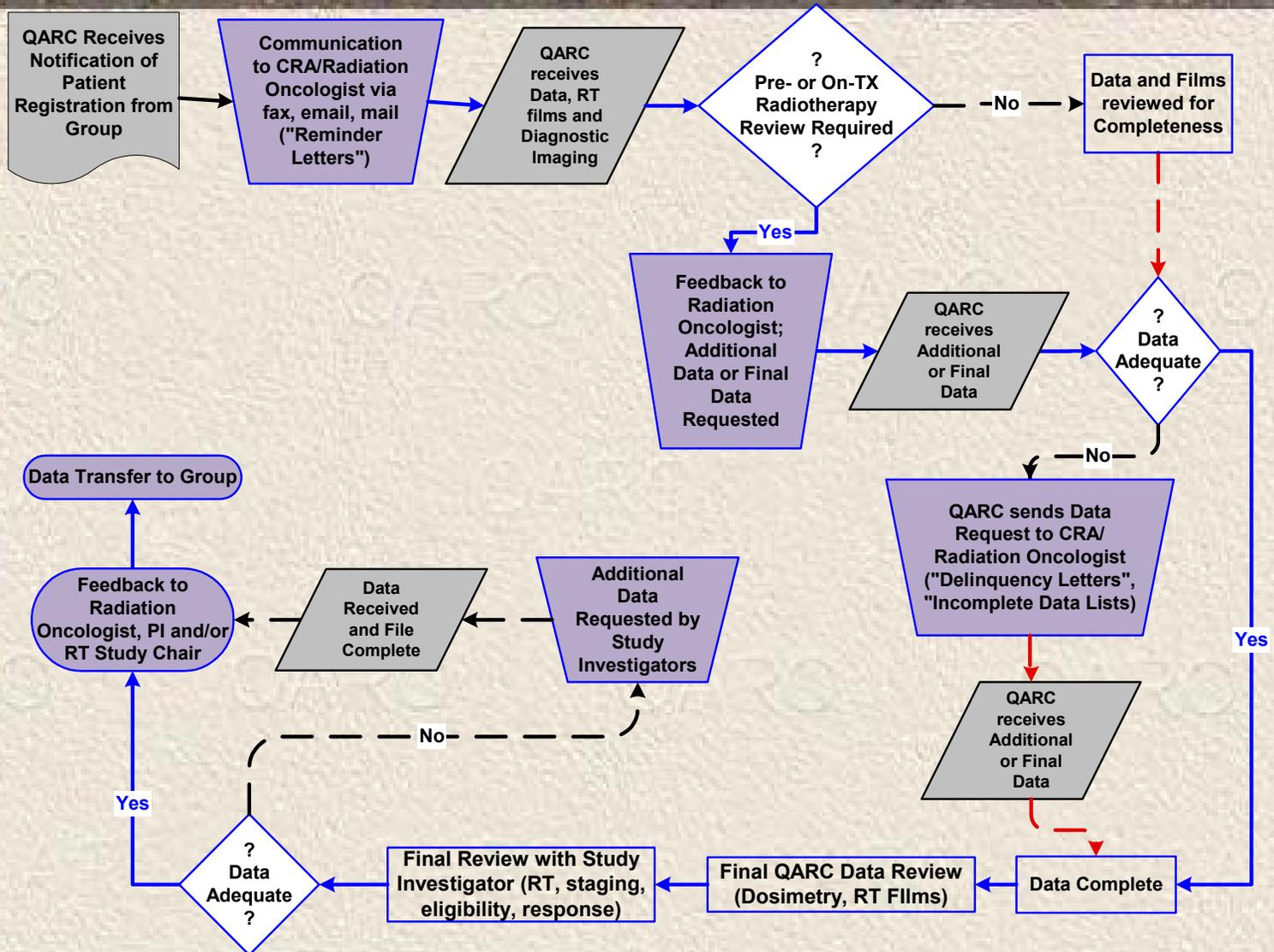
QA Program

- ◆ Protocol Review
- ◆ Institution and Contacts Database
- ◆ Physics QA – Benchmarks
- ◆ Data Management
 - Collection
 - Process
 - Transfer
- ◆ Case Review
 - Pre or On Treatment (Interventional)
 - Post Treatment

QARC Data Management

- Record Management
- Data Collection
 - Pro-Active: E-mail, phone, fax
 - Individual Notification
 - Pre-RT
 - Delinquency Notice
 - Institutional Notification
 - Incomplete Data Report – (2-3/year)
 - On Request
- Data Transfer
 - Feedback to Investigators
 - Protocol compliance Reports to the Group
 - Data for Study analysis to the Group and Study Investigators

QARC Data Flow



QARC Data Review

- ◆ Pre-Treatment

- Approval required before patient can begin

- ◆ On-Treatment

- Films and Planning are submitted within the first week of treatment. Interactions with treating physician can be made to ensure that patient's treatment meets the protocol requirements

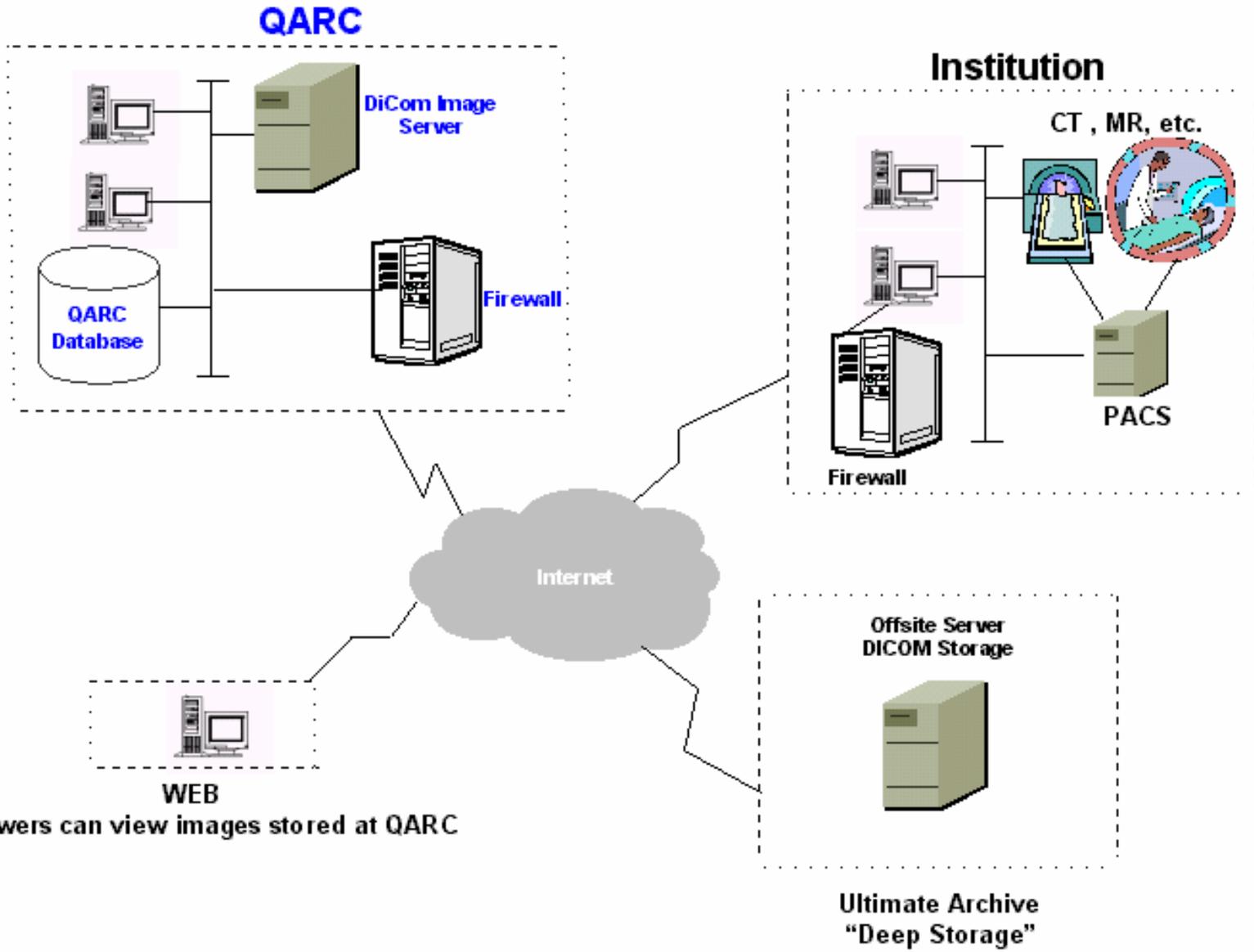
- ◆ Post-Treatment

- Assessment (usually with RT Study Coordinator) to determine overall evaluation of entire treatment course

- ◆ Feedback



Moving QARC Data Management/Review to the Internet



Electronic Film Submission

Diagnostic Data can be electronically submitted to QARC via:

- ◆ **Dicommunicator-** Software that enables institutions with PACS to send digital images. The images can be imported into the QARC database and are linked to the patients' records.
- ◆ **CD - DICOM Images**

Dicommunicator

- ◆ DICOM Compliant
- ◆ Query/Retrieval of images
- ◆ Export via email, ftp, VPN mediated direct DICOM transfer
- ◆ Security
 - ◆ Demographics scrubbing
 - ◆ Encryption

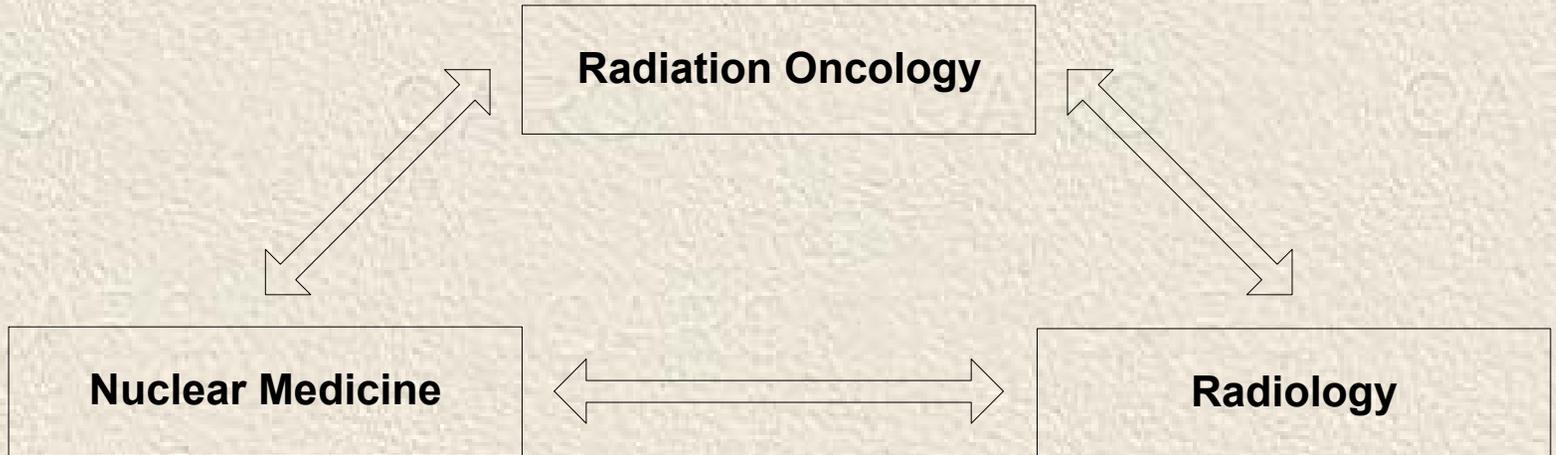
Dicommunicator at QARC

- ◆ Dicommunicator software runs as local “MiniPACS” sited at QARC
- ◆ Electronic connection to institutions via internet
- ◆ Image database indexed to MAX (QARC database)
- ◆ MAX indexed to Cooperative Group databases

QARC Archival Process

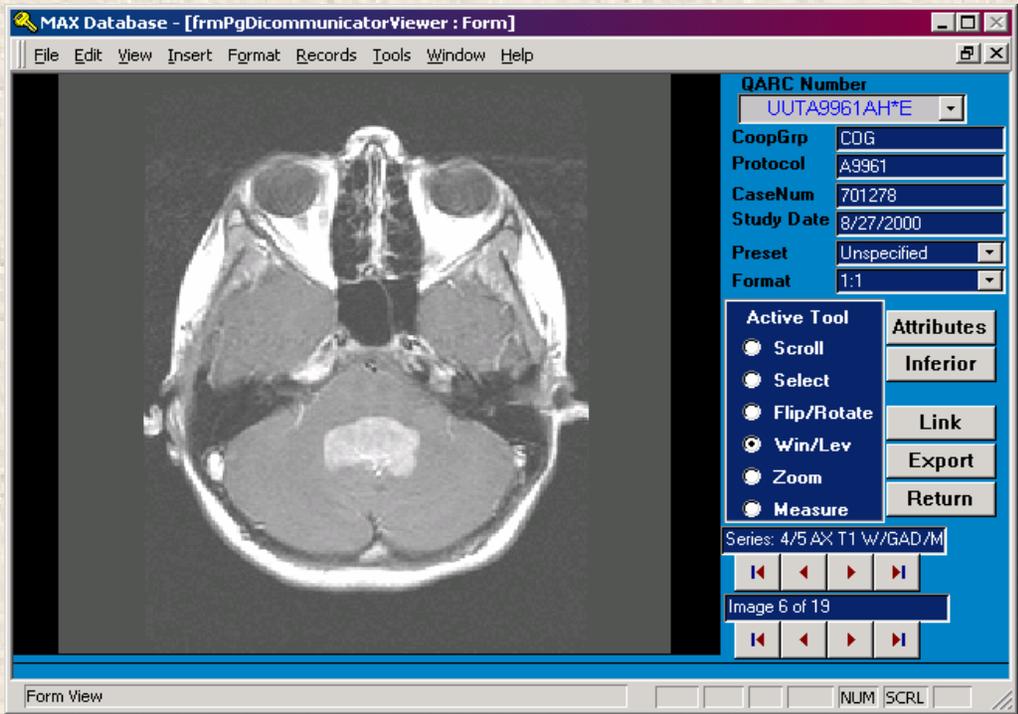
- ◆ Email server queried for submissions
- ◆ Studies decrypted, stored to QARC archive
- ◆ Images verified in MAX
- ◆ Email message verifying successful transfer

Radiological Sciences Future



QARC Database

- **Demonstration**



- The QARC Database Links Patient Records with Digital Images and displays them both at the user Desktop

PATIENT DATA STATUS 4/19/2002 1:48:31 PM

Diagnostic Imaging Inventory

Case #: Name:

QARC Number	Coop Group	Protocol	Principal	Accession Number	On Study Date	First RT Date
UUTA9961AH*E	COG	A9961	UUT	U-8	09/15/00	09/16/00

Event Description: Event: Event Date:

Event Interval Comments:

Study	Not Available	Date	Reviewed	Image Type
Head CT	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>
Cranial MR	<input type="checkbox"/>	08/27/00	<input type="checkbox"/>	DICOM
1.2.124.113532.159.212.128.160.20000827.72050.363285				
Spine CT	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>
Spinal MR	<input type="checkbox"/>	08/27/00	<input type="checkbox"/>	DICOM
1.2.124.113532.159.212.128.160.20000827.70233.363280				