



Radiologist Assistant Perspective on Staff Shortages

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THANK YOU FOR THE INVITATION!





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- Any opinions expressed in this presentation are those of the author and do not necessarily represent the opinion or policy of the American Registry of Radiologic Technologists (ARRT), the American College of Radiology (ACR), the American Society of Radiologic Technologists (ASRT), VCU Health, or any other organizations or individuals unless specifically attributed to those entities or persons.



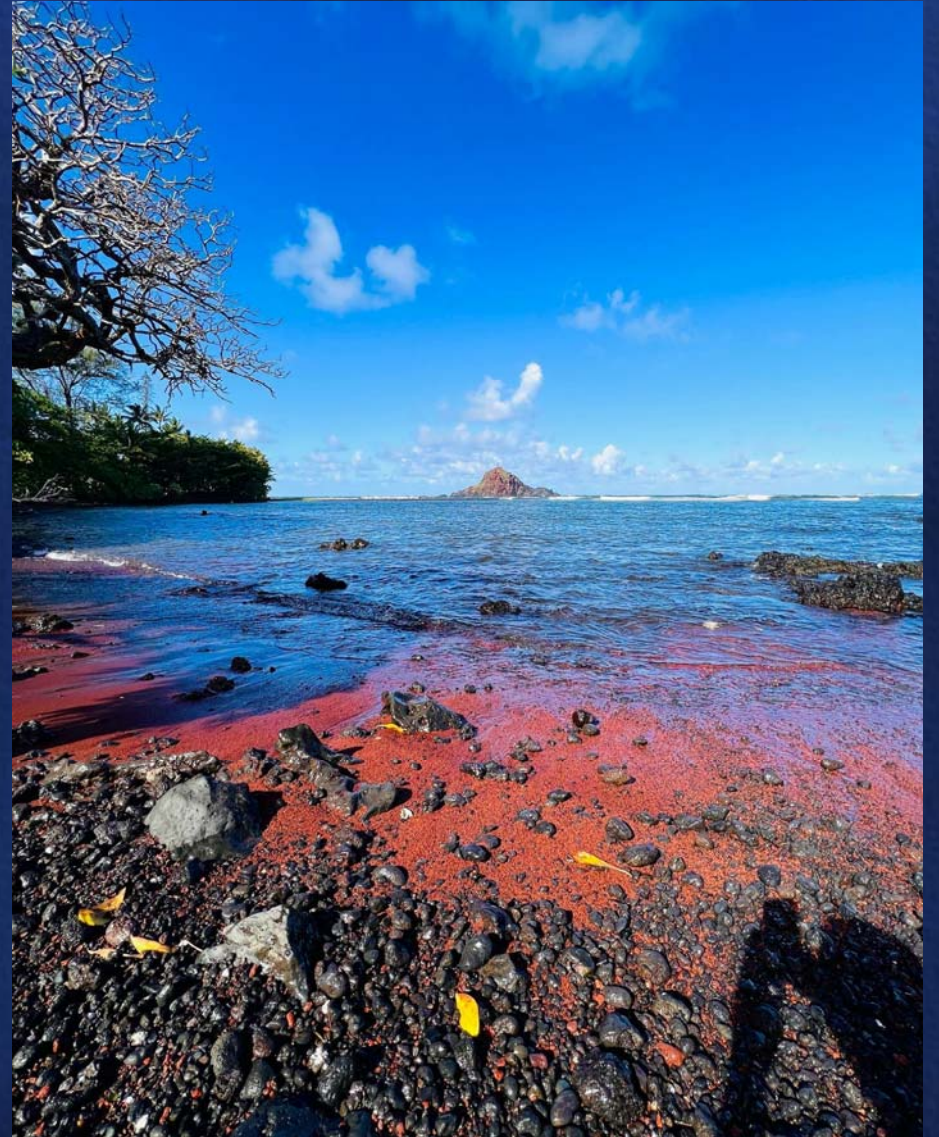
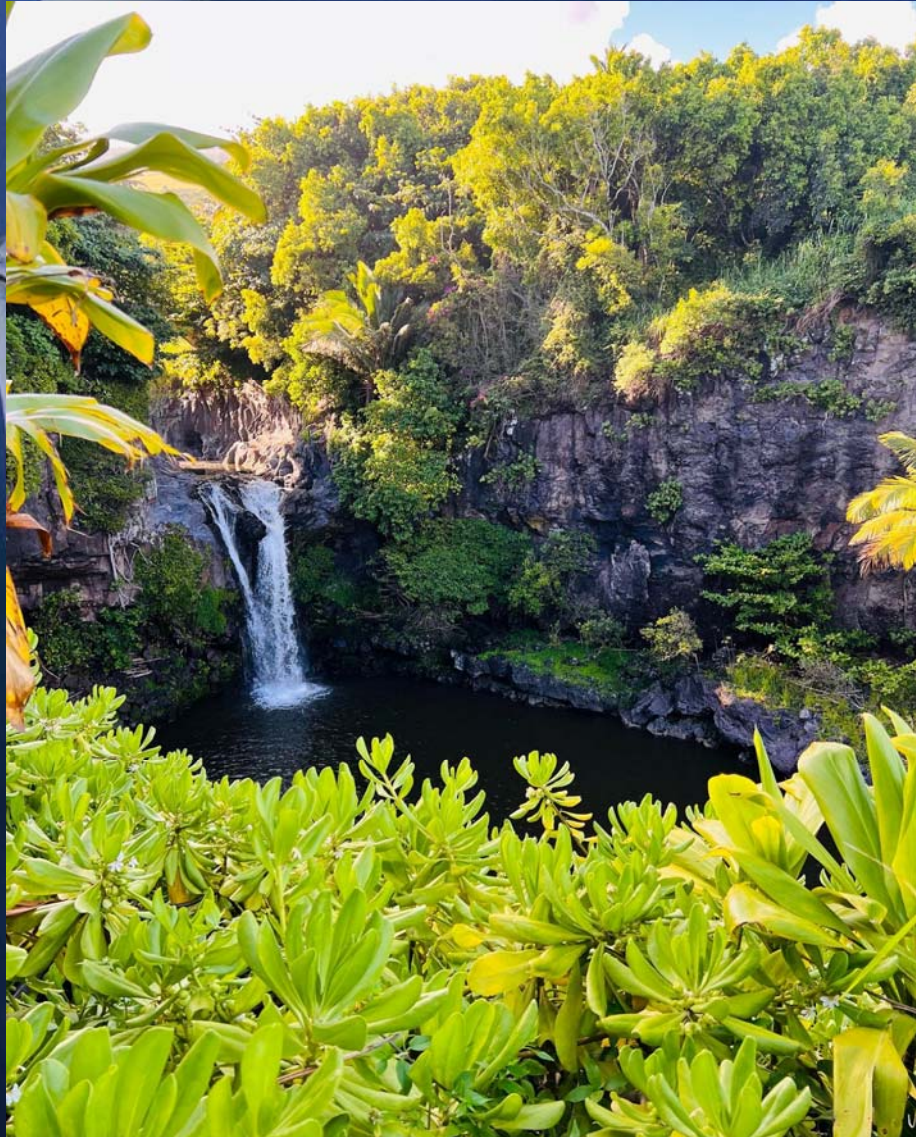
Acknowledgements

The author thanks the following organizations for their help in developing this presentation:

American Registry of Radiologic Technologists (ARRT)

American Society of Radiologic Technologists (ASRT)

Shortages...





The almighty dollar....

- Cha...ching!
- More to follow.

The R.T. Profession

- A brief history
- Founded in 1922- 350,000 individuals with approximately 550,000 credentials

MISSION

Promote high standards of patient care by recognizing qualified individuals in medical imaging, interventional procedures, and radiation therapy.



**ARRT Equation for Excellence =
Education + Ethics + Examination**

ARRT GOVERNANCE

- 10 members of ARRT
- Board Trustees
- 4 year term....may serve two terms.
- New Trustees appointed




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EARN ARRT CREDENTIALS

[Credential Options](#)
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CREDENTIAL OPTIONS

ARRT supports 15 credentials, available in a range of disciplines and through different pathways. Although all pathways share the same ethics and examination requirements, they have different education requirements. Learn more about each discipline and its requirements below.

- Bone Densitometry (BD)
- Breast Sonography (BS)
- Cardiac Interventional Radiography (CI)
- Cardiovascular Interventional Radiography (CV)*
- Computed Tomography (CT)
- Magnetic Resonance Imaging (MR)
- Mammography (M)
- Nuclear Medicine Technology (N)
- Quality Management (QM)*
- Radiation Therapy (T)
- Radiography (R)
- Registered Radiologist Assistant (R.R.A.)
- Sonography (S)
- Vascular Interventional Radiography (VI)
- Vascular Sonography (VS)


**We no longer issue new credentials for Quality Management and Cardiovascular Interventional Radiography. People who hold these credentials can maintain them indefinitely, however, as long as they continue to meet our ethical standards and other requirements for doing so.*

How many of each credential in Virginia?

arrt.org

State/Country	RAD	NMT	THR	MRI	SON	MAM	CT	QM	BD	CI	VI	CV	VS	BS	RA	Certs	Techs
Virginia	8,196	184	658	946	81	1,237	1,801	38	111	27	214	105	3	50	18	13,669	8,752
Washington	5,959	125	478	866	12	929	1,760	16	101	28	114	62	0	24	10	10,484	6,401
West Virginia	2,863	95	133	285	5	350	490	13	24	34	45	29	1	8	2	4,377	2,912
Wisconsin	7,216	66	520	837	2	1,272	1,783	17	114	16	133	36	3	42	3	12,060	7,628
Wyoming	759	25	41	107	1	171	259	6	17	6	17	5	0	0	2	1,416	775





The Education Piece (Radiography example)

Pre-professional Core Content.....

Introduction to Medical Imaging and Radiologic Sciences and Health Care

Artificial Intelligence

The content in this section is a developing area of science, and the language used to describe and differentiate these technologies and techniques is similarly developing. Programs and educators are encouraged to frequently re-examine content in this field to stay current with the latest developments.

Objectives:

- Define terminology associated with artificial intelligence.
- Discuss data and data sets as they apply to artificial intelligence.
- Explain the principles of machine learning, deep learning, natural language processing, and neural networks.
- Outline artificial intelligence applications in health care and medical imaging.
- Recognize the standards and ethics applicable to artificial intelligence in medical imaging.
- Describe artificial intelligence regulation and workflow integration.
- Discuss the role of artificial intelligence in precision medicine.

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PRIMARY ELIGIBILITY PATHWAY REQUIREMENTS

The primary pathway is how the majority of people earn their first ARRT credential. It includes completing an ARRT-approved educational program. You can earn credentials in the following disciplines using this pathway:

- ✓ Magnetic Resonance Imaging*
- ✓ Nuclear Medicine Technology
- ✓ Radiation Therapy
- ✓ Radiography
- ✓ Sonography
- ✓ Vascular Sonography*

[VIEW PRIMARY REQUIREMENTS](#)

POSTPRIMARY ELIGIBILITY PATHWAY REQUIREMENTS

The postprimary pathway is for those who are currently certified and registered with ARRT and would like to pursue an additional credential. The postprimary pathway may also be used by those who hold a credential from ARDMS or NMTCB.

- ✓ Bone Densitometry
- ✓ Breast Sonography
- ✓ Cardiac Interventional Radiography
- ✓ Computed Tomography
- ✓ Magnetic Resonance Imaging*
- ✓ Mammography
- ✓ Vascular Interventional Radiography
- ✓ Vascular Sonography

[VIEW POSTPRIMARY REQUIREMENTS](#)

R.R.A. ELIGIBILITY REQUIREMENTS

- ✓ Registered Radiologist Assistant

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24 C.E. q2 yrs

ANNUAL RENEWAL

As an R.T., you'll need to renew your certification and registration every year. In order to do so, you must be current with your biennial Continuing Education (CE) Requirements (see section below). In addition, to renew an R.R.A. credential, or a credential in a discipline you earned using the postprimary eligibility pathway, you must also maintain certification and registration in the related supporting discipline.

Your annual renewal deadline will always be the last day of your birth month. You can renew quickly and easily online. And you'll find that our **renewal fees** are significantly lower than those of many other credentialing organizations.

CONTINUING EDUCATION REQUIREMENTS EVERY TWO YEARS

When you become an R.T., you'll report your CE activities every two years as part of your annual renewal process. We call the two years during which you complete CE a "biennium." Your biennium will end on the last day of the month before your birth month every other year. Your annual renewal and your CE biennium deadlines will be two separate dates.

A range of activities can count towards your CE requirements, including approved online classes, self-study readings and modules, lectures at professional society meetings, and classroom learning.

You'll have access to detailed information and instructions on CE after you earn your first ARRT credential. To learn more now, review the *ARRT Education Requirements for Obtaining and Maintaining Certification and Registration* document.

CONTINUING QUALIFICATIONS REQUIREMENTS EVERY 10 YEARS

As health care technology evolves, and patients demand increased accountability from providers, many credentialing agencies—including ARRT—have created long-term requirements for maintaining credentials. All R.R.A.s, and R.T.s who've earned their credentials on or after Jan.1, 2011, must complete ARRT's Continuing Qualifications Requirements (CQR) every 10 years. CQR helps identify gaps in knowledge and skills that might cause you to fall behind today's entry-level qualifications. It then develops a plan for refreshing your understanding and abilities. If you'd like to learn more, visit our **video library** to watch our CQR video. Upon becoming an R.T., you'll have access to detailed information about the CQR process when you log in to your online account.

How many programs are out there?

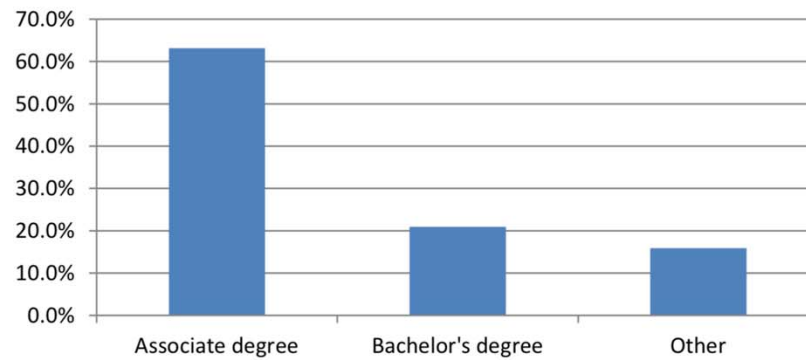
- Radiography- 730 (National)- 18 (Virginia)
- Nucmed- 94 (National)- 2 (Virginia)
- Rad Therapy-99 (National)- 2 (Virginia)
- Sonography- 213 (National)- 7 (Virginia)
- Vascular Sonography- 10 (National)
- MR- 61 (National)



What is the terminal degree earned by the graduates in your program?

	N	Valid Percent
Associate degree	175	63.2%
Bachelor's degree	58	20.9%
Other	44	15.9%
Total	277	100.0%

What is the terminal degree earned by the graduates in your program?



In what country is your program located?

	N	Valid Percent
United States	267	96.4%
Canada	8	2.9%
Australia	1	0.4%
Other	1	0.4%
Total	277	100.0%

In what country is your program located?

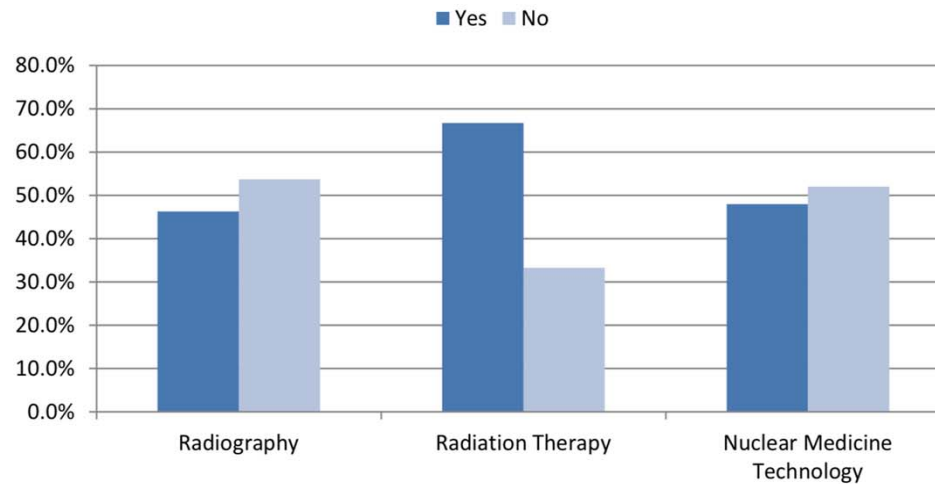


Is your program currently at full enrollment?

		Radiography	Radiation Therapy	Nuclear Medicine Technology	Total
Yes	N	99	24	12	135
	%	46.3%	66.7%	48.0%	49.1%
No	N	115	12	13	140
	%	53.7%	33.3%	52.0%	50.9%
Total	N	214	36	25	275
	%	100.0%	100.0%	100.0%	100.0%

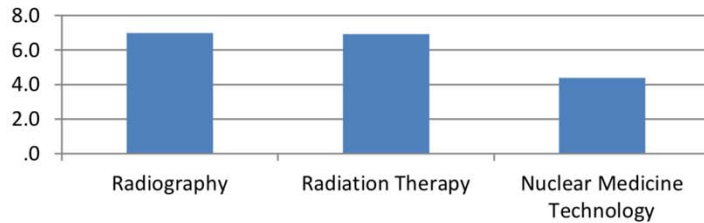
There were no statistically significant differences between disciplines.

Is your program currently at full enrollment?

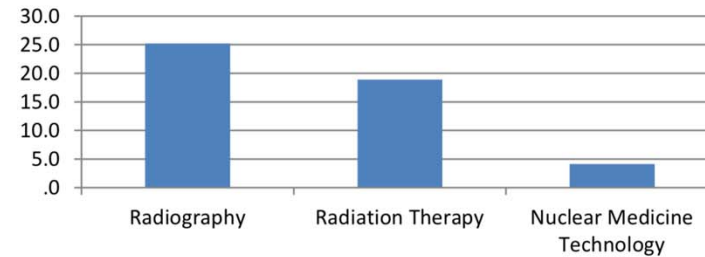


	Radiography			Radiation Therapy			Nuclear Medicine Technology			Total		
	Mean	N	SD	Mean	N	SD	Mean	N	SD	Mean	N	SD
If you are not at full enrollment, how many additional students could be accommodated by your program?	7.0	111	7.8	6.9	12	6.9	4.4	13	4.7	6.7	136	7.5
How many qualified students did you turn away this fall?	25.2	196	40.0	18.9	33	24.0	4.1	24	7.6	22.4	253	36.8
Attrition rate in 2020	12.7%	210	12.3%	8.9%	34	12.9%	10.2%	25	10.8%	12.0%	270	12.2%

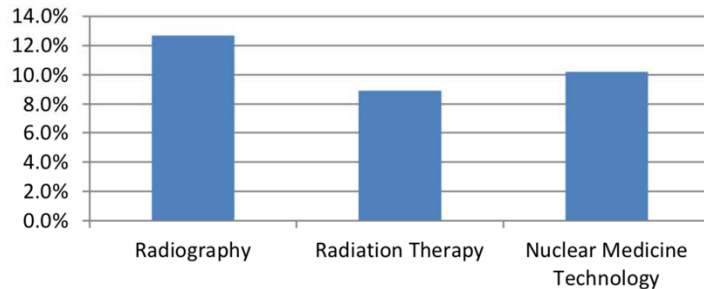
If you are not at full enrollment, how many additional students could be accommodated by your program?



How many qualified students did you turn away this fall?



What was the attrition rate for the class of 2020?






Changing Face of Programs

YEAR	HOSP CERT	OTHER CERT	ASSOCIATES	BACHELORS	TOTAL
1985	473	11	249	18	751
1989	455	15	252	17	739
1994	340	33	300	19	692
1999	244	33	314	20	611
2004	194	36	330	27	587
2009	176	36	381	31	624
2018	105	15	442	46	608

2022 Highest R.T. Educational Level



-

	Number	Percentage
High School Diploma	1538	0.4
Certificate	41015	11.8
Associates Degree	184781	53.2
Baccalaureate Degree	91604	26.4
Masters Degree	15969	4.6
Doctoral Degree (Ph.D., etc.)	720	0.2
Doctoral Degree (M.D., etc.)	383	0.1
Other	1253	0.4
No Response	9864	2.8

Data over time shows increase in higher levels. HS only fading away.

Predictions about Education

- Degree levels earned by technologists will continue to increase
- Educational requirements of technologists will probably also increase
 - Bachelor's Degree may become required for new RTs
 - Degrees may become directly linked to programs
- Increased requirements will not be applied to existing technologists
 - But, employers or insurers could require a higher level
- CT has become a part of Radiographer education





Besides modalities...what are the other options for R.T. upward mobility?

- PACS
- Education
- Clinical Applications
- Sales
- Administration
- Radiation Safety Officer
- MRSO
- Registered Radiologist Assistant (R.R.A.)



RRA Numbers

- 6 programs nationwide (used to be 12)
- 287 RRA
- 141 RRA/RPA
- 193 RPA only (self-report)
- 621 only.....

So...back to the \$\$\$\$\$\$\$

Select Your Criteria

Primary Discipline

Radiography

Title

Staff Technologist/Therapist

Number of years that you've been in radiologic technology

0-2 years

State

Virginia

Highest level of education

Associate

Results of All Criteria Selected

Total Respondents:	10
Average Salary:	\$50,116.00
Average Hourly Wage Equivalent	\$24.09
Median Salary	\$49,983.00
Median Hourly Wage Equivalent	\$24.03

Traveler in Virginia??

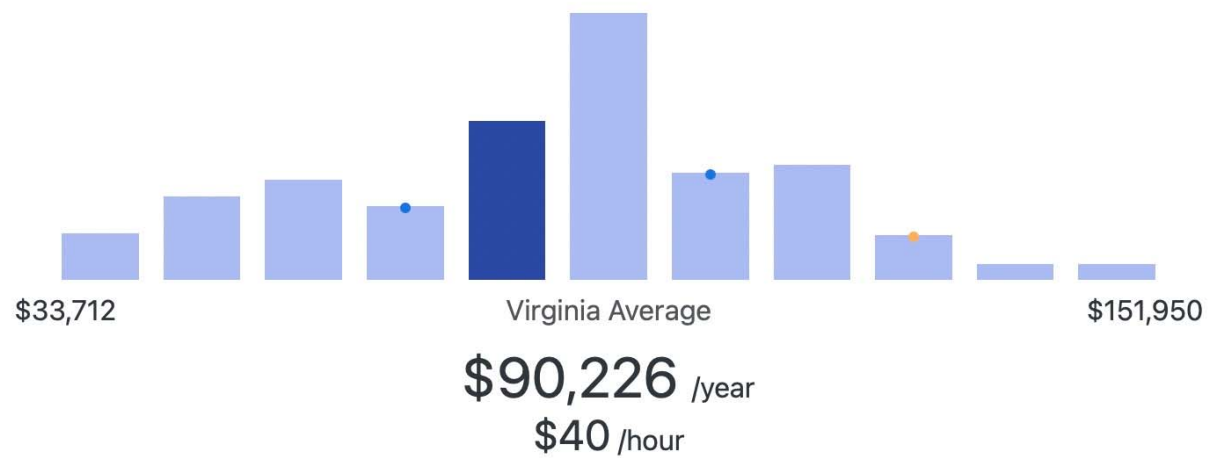


Travel Radiologic Technologist

TRAVEL RADIOLOGIC TECHNOLOGIST

Career Path **Salary** Jobs

Yearly Monthly Weekly Hourly Table View



Travel Radiologic Technologist Salary in Virginia Comparison by Location

Nationwide
United States

\$92,857

Virginia
United States

\$83,462

Travel Radiology Technologist - \$1,750 per week



Med Travelers
Henrico, VA

At \$24.09/hour for staff
tech=\$983/week

Enough Said...



Unless we get more Techs... this may have to happen...

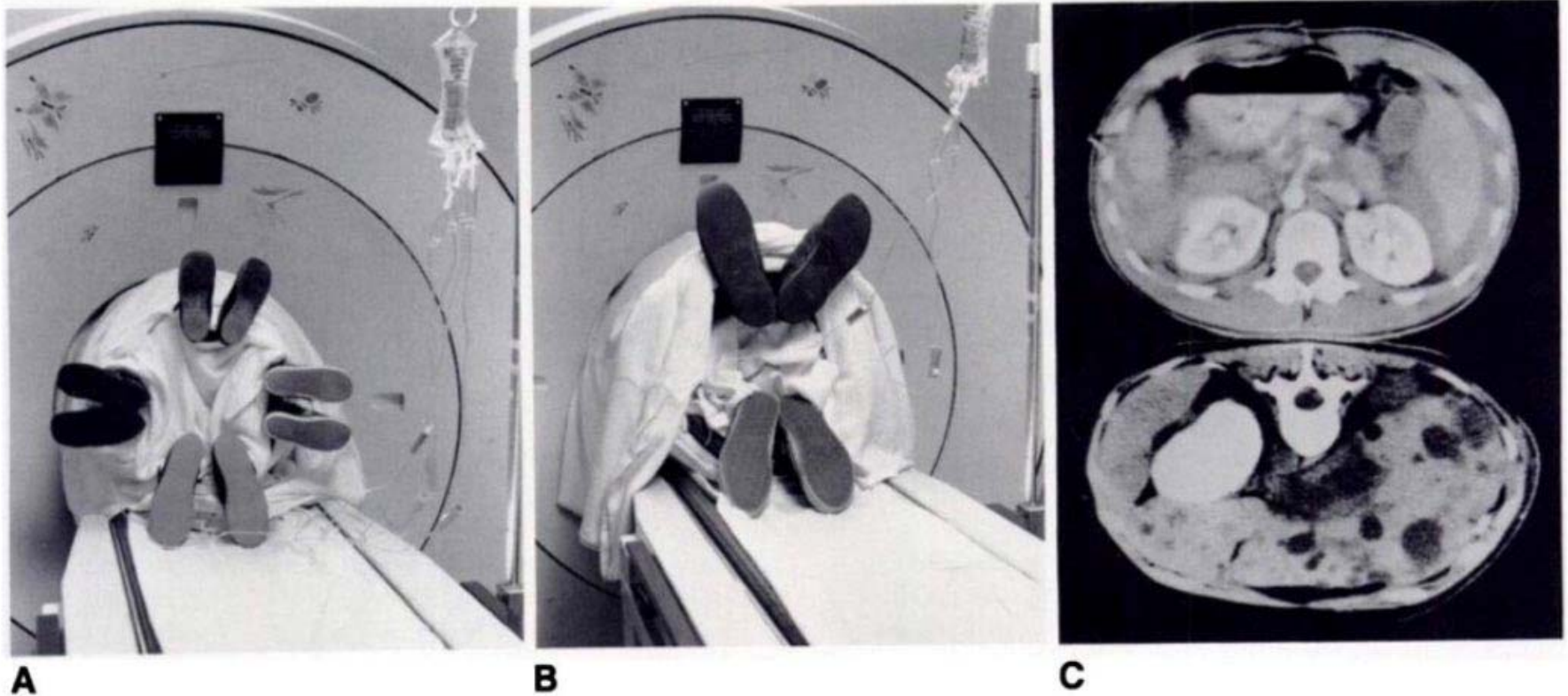


Fig. 1.—QUAC technique. A, Four pediatric patients positioned in CT gantry aperture. B, Two adult patients positioned for simultaneous examination and (C) resulting image (*bottom*, liver cysts; *top*, ruptured spleen [unrelated to patient positioning within gantry]).



How can the Radiologist help?

- My opinion only....stolen from a meme somewhere on the interwebs...
- Radiologists are leaders.
- Situational Leaders
- Our Techs need your leadership!

Tips and phrases from the hi-jacked meme.



- “This is the situation”
- People want to know what is going on. Odds are that they will find out anyway, or worse, fill in the gaps with conjecture.
- Make sure everybody knows what’s going on. It worked for Sam Walton from Walmart.



“Here’s What We’re Doing”

- A leader is supposed to lead.
- Your team needs to know where you are trying to take them, and how.



“What do you need?”

- Folks need to know that you care!
- And you want them to succeed.
- If you have a great plan, leverage every person’s abilities to maximum extent.



“Tell Me More!”

- Let people know you are more interested in finding good answers than hearing yourself speak.
- Give others permission to share opinions....



“Remember Our Values”

- You can't possibly stare over the shoulders of every person making decisions or performing patient care.
- We like to know that you care about the healthcare system values too.



“ I TRUST YOU”

- If you can't trust folks, then they shouldn't be on the team. (Full well knowing the radiologist rarely gets to make up their own team)
- You need to trust their integrity, judgment, confidence and passion....
- Let them KNOW that you depend on them!



“ YOU CAN COUNT ON ME”

- The flip side is true. The team has to know that you have their back....
- WE WILL ALWAYS WORK HARD TO PROTECT YOUR BACK!!



“We can do better”

- The hardest...but most crucial.
- Always push for a higher standard.
- Congratulate when they do well...
- No coddling if they don't live up to their potential.
- Also means admitting when you fail to live up to the standards too.



“ LET’S CELEBRATE!!!!!!”

- Avoid a culture where the only reward for great work...is more work.
- Celebrate WINS, large and small!
- Congratulate folks on their great work and milestones- *both professionally and personally!*

We LOVE our Radiologists!

- I pray the feeling is mutual!
- Thank you!

