

Components of a Successful Radiology Practice

Steven L. Mendelsohn, M.D.

CEO Zwanger-Pesiri Radiology, Lindenhurst, NY, USA

Introduction

This treatise is drawn from my own personal experience, thoughts and ideas from these past 35 years. Published articles and courses cover a very limited scope of components of a successful radiology practice. They usually address or mention only a handful of few

selected items. This is not a literature review. There are no quotations, citations or references to any literature or publications (other than Webster and Oxford dictionaries). This is not a reiteration or summary of other people's talks, presentations or lectures.

Most people don't actually read paragraphs

People often skim read bullet points and outlines:

- Sections of interest can be easily identified
- Irrelevant sections are easily skipped
- Different items will be relevant to each reader
- You likely will skim through the 27 topics and hundreds of items addressed below

Environment of kindness

Kindness cannot be stressed enough. It should be of #1 importance in corporate culture. Although for our staff, this is merely another routine day but the patients are scared. Many patients fear we are about to diagnose bad infections, clogged arteries, cancer or an imminent demise. Kindness applies to receptionists, aids, technologists, nurses, radiologists, billing staff, collection staff, maintenance staff. Our entire corporate culture and our overall mission is: **Smile. Be Kind. Be Nice.**

- Start by being kind to each and every one of your coworkers
- Everybody spends 40 plus hours at work and additional time socializing evenings and weekends. Often more time than spent with spouse and kids.

- No one has the right to have an adverse effect on the happiness of another staff member
- Unhappy staff members have every right to seek a happy job, elsewhere
- Generalized staff kindness will result in reciprocal kindness toward the patients, their families, to the referring doctors and their staffs
- Managers must lead by example by leading with kindness to their staff
- COO and CEO and VPs must lead by example by leading with kindness to their managers

Hospitality attitude

Attitude sets the tone for the entire organization. Hospitality and customer service industries (hotels, restaurants) have already made a science. Medicine is just beginning to recognize:

- Acknowledge and greet the patient
- Stand up to greet a patient (receptionists, technologists, nurses, and radiologists)
- Utmost sign of respect (for most cultures)
- Make direct eye contact, and smile
- Treat every patient like your favorite aunt or uncle
- "Good morning. Thank you for being so patient. I will be with you in just a few moments."

- “Hello, my name is so and so, how may I help you?”
- “Thank you for coming to our office.”
- “I want to be sure all your questions have been answered, do you have any other questions?”
- “Is there anything else I can do for you?”
- “We know you have choices and appreciate you coming to our office/facility.”
- “We are here because of you (our patient).”
- Attentive, upbeat, positive, and cheerful
- Speak softly and gently with an unrushed voice
- Demonstrate a calm relaxed demeanor
- Focus on the one patient in front of you, that person is your only priority
- Every staff member needs to be inherently wired to be kind, sincere, caring, compassionate, and empathetic
- There is only **one** opportunity to make a great 1st impression – that opportunity never recurs
- Overwhelmingly positive experience, “good” just isn’t good enough
- Errors occur, we all are human and can explain those, however bad attitude is inexplicable
- Communicate reason and duration of delays
- Preferably contact patient in advance giving opportunity to reschedule
- Keep the patient updated
- Never underestimate the delay, in fact overestimate the anticipated delay time
- When time is shorter, patients will appreciate being taken in earlier than expected
- Never say no, or “it can’t be done”
- Make every attempt to escalate it within the organization until you reach the person who can figure out how to make it happen
- If it still just can’t be done, at least the patient will know you went through every effort possible
- You should be able to please the overwhelming majority of people
- Most difficult patients are merely scared or overwrought with anxiety

Physical plants

Walk through the entire facility as a patient would, see what they see.

Building itself:

- Visible “Radiology facility” signage on building
- Updated appearance
- Sand blast or power wash
- Replace facade if needed
- Clean windows, awnings

Sidewalks:

- Remove litter, repair cracks, and power wash off dried gum
- Parking lots (even if it isn’t your building):
 - *Clean and free of litter*
 - *Well striped parking spots*
 - *Clearly marked Entrance and Exits, traffic arrows*
 - *Well illuminated at night*

Grass areas:

- Nicely manicured lawns
- Well maintained landscaping
- Calming features such as waterfall, fountain, statuary, benches

Doors:

- Visible “Radiology facility” signage on entrance door
- Office or exam room and number on each interior door

Floors:

- No clutter, debris, litter, medical supplies, boxes, or folders
- No stained carpets or floor tiles
- No chipped or missing base molding

Walls:

- Nothing taped to tacked to the walls
- Touched up paint without cracks and discolored areas
- Wall paper that is nice looking, no peeling areas

- No chipped paint on doors, door frames, walls, chair rails
- Nicely framed signage and directions for patients
- Nice wall decorations, paintings, and art work

Furnishings:

- No chipped or peeling paint on counter tops, cabinets, equipment, or examination tables
- Nice updated furniture
- No stained or torn chair fabrics
- No broken or wobbly chairs or tables
- Soothing colors and styles

Ceilings:

- Clean air supply and return vents
- No stained or missing ceiling tiles
- No burned out light bulbs

Bathrooms:

- Utilized by nearly every patient
- Immaculate throughout the entire day
- Updated toilets, sinks, tile, floor, hand driers every 5–10 years
- Paper towels and toilet paper always present
- Proper amenities for women as well as infant changing

Examination tables:

- Look up from inside of the CT gantries and MRI bores
- Lay down on the ultrasound table
- Look at the right side for old dried gel
- Tilt your head back and look at the dust balls behind ultrasound units
- Look at the chipped dented wall alongside the table

Technologist console areas:

- Remove all clutter, coffee mugs, coffee cups, newspapers, magazines, books
- Remove all debris, rolls of tape, baskets of pens, sticky notes
- From inside the room, look through the window toward the tech and see clutter

General office appearance:

- Uncluttered receptionist desks
- Nothing taped to walls, windows, doors, or phones
- Neatly arranged bulletin boards
- No sticky notes scattered around
- No overflowing waste cans

Radiologist's reading room and offices:

- Often seen by staff members and patients
- Reflection of the radiologist's attention to detail, organization and cleanliness

Adaptability and change

In radiology, change is constant, not occasional or intermittent:

- Recognize that change is a tough concept for many, widely feared
- Maintaining the status quo may be one of the strongest forces on earth
- Radiology must continually evolve with the times
- Stop fighting change, embrace it
- Analyze everything you do
- If you are still doing things the same way as three years ago then complacently in the status quo may have set in
- Every single process should be re-evaluated and have changes implemented every few years
- Some changes major, other minor, but some sort of change nevertheless

Strive to completely eliminate waiting

A waiting room full of patients represents complete system failure:

- In no other industry is this abusive type of customer service even marginally acceptable
- Waiting enrages so many patients
- Patient's #1 complaints about doctors is waiting
- First is about time waiting in the office, second is delay in obtaining the appointment

- Erodes much of the positive feelings patients otherwise have toward their entrusted physician (anger is not focused at the hospital, other staff, or nurses – always at the physicians)

Waiting is theft of the patient's time:

- A single minute of a patient's time is every bit as valuable to him/her as a minute of my time is to me
- Time (not money) is the single uniform equalizer and balance of society
- Radiology can lead by example as a specialty and become better than all other physicians
- Radiology is even more of a service industry than all other medical practices
- Analytics ability makes radiology different from most other specialties
- We know how long each examination takes
- We know there will be some emergencies and add on examinations
- We know some patients will arrive late, and a few early
- We know some patients will come on the wrong day
- We know some patients will cancel
- We know some patients won't show up
- We know some patients are debilitated and need much more time for each examination
- We know there are errors on the referral slips that need clarification and correction
- We know there will be confusion with copayments and deductibles
- We know some patients will arrive without their wallet or credit cards
- Time related issues are so pervasive that they actually become highly predictable

How long is an acceptable wait?

- Ideal would be five minutes or less
- We have achieved an enterprise average of seven minutes from appointment time until patient is in the exam room
- Patients are ok'ish waiting for about ten minutes
- Beyond 15 minutes will rightfully result in patient annoyance

- How to decrease actual waiting time – find the foot on the hose
- Administration must monitor and continually (daily or weekly) study waiting times
- Applies to every patient, every location, every examination, all times of day, evening, and weekends
- Looking at only the average or mean will invariably be quite misleading.
- Look at the outliers and frequency and underlying cause
- Every outlier is an appropriately upset patient
- Email or follow up call with a proactive apology

Identify the cause of the delay:

- Overscheduled?
- Too many patients?
- Too many add-on cases?
- Too few radiologists?
- Too few technologists?
- Too few receptionists?
- Staff arriving late?
- Staff cannot be located?
- Staff distracted with other responsibilities?
- Lost staff time from waiting for patients?
- Waiting on other staff members?
- Waiting on paperwork?
- Patients arriving late?
- Patients forgetting referral slip?
- Referral slips are unclear?
- Patients arriving wrong day?
- Wrong location?
- Wrong examination requested or scheduled?

Solve the delay problem:

- Modify the schedule
- Examination times may need to be lengthened (or shortened)
- Create variable blocks as catch up time which will differ for modality, location, radiologist, and technologist speed etc.

- Create fixed blocks for anticipated STAT cases
- Our analytics show us the location, time, day, and modality of STAT cases
- Late Friday afternoon DVT ultrasounds
- Late afternoons for abdominal pain CT
- Late Saturday mornings for orthopedic MRI
- Modify staff schedule
- Place more radiologists and technologists where they are needed
- Front desk registration staffing
- Statistics will demonstrate the number of registrations each hour
- Too often there are way too many receptions from 8 to 9 and too few after 4 pm
- Modify receptionists schedules and shifts for when most needed
- Remind patients of upcoming appointments the day as well as an hour prior to the appointment
- Email, SMS, text, phone call

How to decrease perceived waiting time:

- If a patient registers and waits in the same room, the “wait” clock began the moment the patient entered the facility
- The psychological “waiting” clock restarts if the patient is moved to a second area after completing the registration
- Sub-waiting areas should be separated by modality. Avoids the frustration whenever a patient sees later arriving patient (for another modality) being taken sooner.
- An MRI patient may see dozens of X-ray patients arrive and leave while he is still waiting
- Need entertainment or distraction – TV, iPads, Wifi (with video streaming enabled), game console, newspaper, magazines

When Waiting does occur:

- Waiting will still occur on a variable basis throughout the day
- Any delay should be explained to the patient
- Patients have every right to be kept informed of how long their wait will be
- Call ahead, as early as possible, before the patient has left home or work

- Give them an option to reschedule, heads up to arrive later, or change office locations
- Once in office, frequently update patients of the remaining duration of the delay
- Apologize again and again, offer alternatives, niceties, cup of coffee, knick knacks

Unusual situation management

- Staff needs to be aware of a distressed patient or unusual situation
- A young mother who needs to pick her kids up at school is in a critical situation for her
- A disabled or unruly patient may need to be taken out of turn



Patient appointment scheduling and availability

Ask: “What day, time, and location would you prefer?”

- It is amazing how many people would prefer an appointment a few days out
- Stop offering the patient merely the next available appointment time
- The public is trained to unquestioningly accept that particular time, regardless of how disruptive or inconvenient it may be
- Offer to perform the examination whenever the patient wants it
- Whether it is a particular day that service isn’t usually offered
- The patient’s needs takes preference over staff convenience
- May require rearranging the radiologist’s and nurse’s schedules
- Making exceptions is the rule
- Non 8 am to 5 pm appointments are essential
- Early before-work appointment slots
- Late after-work hours slots
- Saturdays need to be a full work day
- Many people want the comfort of having a family member accompany them
- Many people do not want to miss work
- Many find it easier to get a ride

- Some locations need to be open Sunday
- For people who work Saturdays
- For Sabbath observers
- STAT examinations
- Accommodate all requests
- Not only for important referring doctors
- Needs not be a medically indicted urgency
- At times because the patient is overly anxious
- Perhaps about to travel
- We should not be the judge of what is urgent to each patient

Phone system waiting

How long being kept on hold trying to schedule an appointment is acceptable?

- Look at the phone system data
- How many calls are dropped?
- Immediate call answering to up to about ten seconds is quite impressive
- 15 to 30 seconds is marginally acceptable
- Anything beyond 30 seconds is failure and guaranteed patient dissatisfaction
- Increase staffing during highly predictable peak call hours
- Create flexible overflow staff to answer inbound calls
- Billing staff, data entry, and other back office staff can all be automatically added to "answering group"
- Avoid having staff who are dealing directly in person also answering calls and making appointments
- 30 second maximum till call goes to overflow group
- Consider eliminating those very annoying automated electronic call answering menus
- These waste considerable amount of caller's time
- Extensive menus trees are quite annoying
- Difficult to navigate while driving
- Decrease referring physician waiting

- Provide the referring physician with all radiologists and key staff extensions
- Include radiologist's direct phone extension under their signature on every report
- Website – provide the direct extensions for each department, radiologist and administrative member

Radiologists

Keeping radiologists happy is quite important:

- Try to address individualistic idiosyncratic needs and priorities of each radiologist
- Everyone has unique needs, desires, and preference
- For some the schedule may be the most important
- Option to work shorter days, or longer days, or more days
- Flexibility to go 75% or 50% part time with nominal advance notice
- Option to work more weekends and accumulate more whole weeks vacation time
- Flexible schedules to attend children's school functions
- Religious Holy Days off, regular week day off
- For some it may be the working location
- Work and read in office, home or hybrid if both
- Option to read a few hours daily while on vacation
- For some it may be type of cases they read
- Read only in subspecialty vs read from various specialty areas
- For some it may be the money
- Option for internal moonlighting as they need
- Options to do more teaching, lecturing, research, writing, administrative work, etc.

Admiration, appreciation, and respect:

- Admiration and respect are earned by actions and behavior
- Setting an outstanding example, not by title or mandate

- Easily earned by demonstrating reciprocal admiration and respect
- Refrain from speaking negatively about any staff member
- Demonstrate high respect for every single staff member
- There is never a reason to publicly berate – you can always privately educate
- Continually demonstrate and lead by example with the best behavior
- Be the first to say,
 - “Yes, glad to do it.”
 - “Call me anytime you want me to look at a study.”
 - “I’d be glad to read that difficult case.”
 - “I’d be glad to talk to that patient.”
 - “I’d be glad to take that call from the patient or referring doctor.”
 - “I’d be glad to stay a few minutes late to accommodate that patient.”
 - “Is there any way I can help?”
- Acting is okay
- If you just aren’t a nice person, then try to act like one
- If smiles don’t come easily or naturally to you, then paste on a fake smile
- Put aside anger or frustration with your personal life or personal situation

Consideration of patient’s and other staff member’s needs:

- Decreasing a few minutes of wait time for every patient
- Eliminating unnecessary tasks assigned to technologists, receptionists, schedulers, and billers
- A few seconds needed for report clarity
 - Can save a coder five to ten minutes of time
 - Can save a patient an anxiety filled weekend
 - Can save an unnecessary call from the referring physician or patient

Reports need to be clear, simple, understandable, and accurate

Patient’s ability to understand the reports is absolutely essential:

- Clarity and simplicity rule!
- Patient should not need to resort to Google search or calling their doctor
- Skip all abbreviations
- Skip the technobabble
- Such as the multitude of details describing the MRI sequences performed
- Descriptions of the lesion characteristics on each sequence
- Lengthy descriptions baffle the referring doctor and patient
- Skip the endless repetitive flowery prose
- Impressions and conclusions
 - Should be relevant, appropriate, brief, and to the point
 - Should not be a lengthy repetition of the entire report
 - Should not be simply “see above”
- Verbiage
 - Commit yourself
 - “Normal”, “Benign”, “Malignant”, “Benign nodule”, “Benign granuloma”, “Benign cyst”
 - “Diagnostic of”, “Of no clinical significance”, “No follow-up or further testing is needed”
 - Stop equivocating. Expunge words such as: “Probably”, “Consistent with”, “Cannot rule out”, “Could represent”, “Should be considered”, “Clinical correlation needed”, “Has the appearance of”
- Report format and appearance count
 - Uniform paragraph and line spacing
 - No spelling errors, no syntax errors, no grammar errors, no punctuation errors
- Templates and macros may help avoid errors
- Proofread anything that is created by articulation and voice recognition

Availability to speak with referring physicians and patients

Applies to radiologists as well as the entire radiology staff such as managers, nurses, technologists, IT, billers, collections department:

- Schedulers, techs, nurses, and radiologists should be available to answer questions before the exam is scheduled
- All methods of accessibility are needed: in-person drop by visits, phone, text, fax, email
- Ease of contacting the desired staff member
- Web site includes email addresses, direct phone extensions, scheduled hours in office
- Connect directly to desk phone
- Avoid going through electronic phone tree
- Avoid needing to go through multiple parties to reach desired individual

All staff need to develop rapport with each patient once in the facility:

- Receptionists, aids, techs, nurses, and even radiologists should explain the examination and answer questions before the study is initiated
- Technologists should talk and coach the patient during all examinations, regardless how brief
- Technologists must always talk to the patient immediately after the examination
- Spontaneously tell the patient when the results will be available. They all want to know, whether or not they ask.
- Once results are released the reading radiologist needs to be immediately available to the patient or referring physician
- Direct phone extension is listed under the radiologists signature on every report
- Phone options: 1) voice messages 2) forwarded to cell phone (8 am to 10 pm, Monday thru Sunday) or 3) return to (human) operator
- Radiologist needs ability to remotely see his/her reports as well as images

Attire and appearance of personnel

Attire is a reflection of pride and attitude of the entire organization:

- Identifiable Names:
- Legible name embossed on shirt or uniform
- Visible two sided photo and name badge (two sided prevents it being obscured by being turned around)
- Staff acts more responsibly as patients will know who we are
- Enables staff knows each other's names

Analytics

Hawthorne affect – Behavior is altered due to awareness of being observed:

- Transparency – staff should know they are continually analyzed
- Need to be able to see their own performance, on a real time or ongoing basis
- Comparison to him or herself over time
- Comparison to coworkers
- Reports and dash boards need to be easily understood and actionable
- Excel spreadsheets are rarely interpretable at a glance
- Graphs, trends and charts need to be understandable and self explanatory
- Proper titles, columns, labeling and comments where needed
- Need to be highly accurate and statistically valid
- Comparisons cannot be just from last month or last year
- Spurious improvement merely because of last year's snow days or hurricane
- Spurious increase or decrease due to a different number of working days that month or that quarter compared to the previous year
- Verify integrity of data coming in
- Use your intuition, cannot blindly rely on information from data base analysts
- Analytic reports

- Numerous daily and weekly reports as well as several hourly reports
- Emailed to all relevant staff
- We don't rely on management remembering to create and look at their various dashboards

- Sensitivity and awareness of different cultures, languages, customs, traditions, educational level, literacy level, computer skills, internet skills
- Different special needs, expectations and understandings

Complaints are valuable to improve

Contained within these complaints are the recipes, ideas and opportunities for improvement.

Opportunity to turn lemons into lemonade and perhaps a lemon meringue tart:

- Diligently listen to patients, staff, referring doctors, management, and administrators complaints
- Respond back to every single negative comment or complaint
- Thank them for taking their valuable time to make the complaint (rather than simply use another radiology facility)
- Never argue, defend or justify
- Just accept those complaints as valid
- Ask for their suggestions for improvement, allying with the complainer
- Act on the complaint
- Give the original complainer a follow up, letting him/her know of the actions taken and again thank them

Education

Everyone needs to maintain their respective radiology, technical, and nursing educations:

- Reading published articles, doing online CME, attending courses, lectures and symposia

Every staff member needs a continuum practical education:

- Hospitality education – learn from great examples set by fine hotels, restaurants, businesses, eCommerce businesses
- Emotional intelligence – dealing with many daily situations in a mature and caring way, sensitivity, sympathy, empathy
- Sociology/religious/racial/cultural education

Advertising and marketing

Opportunity to educate the public as well as referring physicians and their staff:

- Function as key Account representatives more than marketers
 - Develop personal relationships with physicians and their staff
 - Educate physicians and their staff
 - Latest developments in radiology
 - Our most recent new features, staff additions, new facilities, new equipment
 - Solve problems, avoid issues and crisis
 - Source of information about the community, competitors, etc.
 - Public education and marketing
 - Some people prefer educational information, articles, publications
 - Some prefer to know what is the latest and greatest
 - Some people focus on the differentiators
 - Consider every media and method as all are effective and all people are different
 - Depends upon your target audience location, age, scope, message, etc.
 - Some people are on their computers, smart phones, etc. – consider social media
 - Some people watch TV or listen to radio
 - Some people read newspapers, mailed brochures or pamphlets some look at banners and posters
- Everyone likes freebies:**
- Reuseable shopping bags, pens, pencils, pads, sticky pads, water bottles, coffee mugs, blankets, nail files
 - Emboss with facility name

Actionable meetings

None of us is as smart as all of us. My Chief Operating Officer, Bob Day, and I frequently hold and attend very productive meetings:

- Large and small groups as well as individuals
- Attendees: Top management, CEO, COO, and section or department chairperson need to attend and be engaged
- If nothing actionable is being accomplished during the meeting, then end the meeting early
- All attendees must stay on track and focused
- Need to be appropriately brief
- Skip the digressions and story telling
- Eliminate the urge to speak if one has nothing worthwhile to contribute
- Participants should feel free to exit if meeting is irrelevant for them
- Effect immediate action while the meeting is in progress
- Assign or delegate tasks
- Text or email others to immediate action, even while meeting is still in progress
- Meeting frequency
- If there is nothing important on the agenda then cancel the meeting before it has started
- Meetings are very expensive in terms of personnel preparation and attendance time
- Meetings for the sake of meeting need to be limited
- Sometimes a brief monthly or even annual meeting may suffice
- Sometimes daily brief meetings are needed during critical project phases
- Limit the frequency and duration of unnecessary standing meetings with repetitive discussions
- When geographically feasible, hold meetings face to face
- Observe people's reactions, smiles, smirks, restlessness, and rolling eyes
- Forces attention, preventing the distracting emailing and texting that occurs during virtual meetings and muted conference calls

- Virtual meetings, Skype, Face Time, conference calls are often necessary
- Lost is the valuable side chatter, needed to foster creativity and problem solving
- Lost is full attention of all attendees as they do their own email and texting

Promotions/demotions – leadership must be by example

Recognize, reward, and promote based on talent, not longevity (seniority) in the organization:

- Creative ideas and leadership provided by the more recently hired highly talented, motivated, dedicated, hardest working people
- Promotions based exclusively on seniority perpetuates sub-mediocrity
- The most talented, newer staff seek employment elsewhere

Motivational promotion/demotion cycle:

- Requires an enlightened staff and a trusting wholesome environment
- The continuum of change is essential for all management
- Promotion to middle management is often quite motivating for that one individual
- If that position is permanently filled, it can be quite demotivating for all others who would like to have the opportunity
- Many positions should not be permanent but re-earned for a few more years
- Then that person should return to becoming a regular staff member
- Highly contributing due to their gained management experience
- No salary reduction

Attendance

Maintaining high attendance level is critical to uninterrupted operations:

- Allow staff to preschedule days off for known upcoming family or children's events

- Create an easy system for staff members to switch shifts and coverage
- Volunteer and available for additional work
- May prompt someone else to take the switch who was otherwise reluctant to take off
- Transfer responsibility of finding coverage to the staff rather than management
- Staff nicer to peers who they will need to call on for shift changes
- Reward near-perfect attendance with recognition, a bonus vacation day or bonus pay

Staff workflow

Frequently addressed by many RIS and software vendors. This is a very brief synopsis – I could write ten pages on this alone.

Removing the foot from the hose:

- Patient, referring physician, referring physician's staff, radiology office staff, etc.
- observe, measure, analyze, change, reassess, and reinvent
- Eliminate time consuming or manual processes

Radiologists:

- Decrease the number of clicks and "hourglasses spinning" in the RIS, PACS, and Powerscribe.
- Server based rendering PACS saves radiologists hours weekly
- No longer having to wait for old images to download - Increases frequency comparisons of images are actually made
- Structured/Template reporting
- Consistency facilitates reading by referring physicians
- Eliminates omissions
- Decreases error rates
- Autopopulate based on CPT exam codes
- Automated peer review grading embedded in RIS
- Automated follow-up for any recommended studies
- Integrated calling support contacting referring physicians

- Phone-less mammography/breast sonography communicator

Nurses:

- Medical clearance, answer medical questions for referring doctors and patients, start IV's, iStat for creatinine levels

IT:

- VDI – Virtual Desk Top Integration
- A robust universal single sign on for all staff
- Bar coded documents for scanning
- Automatically populate into the correct account
- Automate image routing and distribution
- Automate intelligent image prefetching
- Automate CD burning by modality and referring physician

Receptionist/Registration/Schedulers:

- Staff according to anticipated hourly visits or call volume
- Streamline phone system
- Integration of phone call or near field with RIS
- RIS automatically opens to the account
- Google maps integration
- Automatically shows nearest office locations and distances

Respect Patient's Time

Parse every minute the patient spends from the moment the physician tells the patient a radiologic study is needed until the moment follow-up treatment (as affected by our results) is initiated:

- Time needed to find website
- Time needed to navigating website
- Time needed to make the web appointment (or request)
- Completing online forms
- Scanning or uploading or attaching documents, insurance card, etc.
- Ease of confirmation receipt
- Time spent on appointment confirmation call back call (if only a request was made online)

- Time to find the imaging facility phone number
- Ease and time spent navigating and clicking through the radiology facility phone menus
- Time spent until appropriate human is reached
- Time lost with call transfers
- Time spent on phone with actual human scheduler
- Time spent opening email
- Time spent downloading instructions
- Time spent to find link to read and then actually print documents
- Time spent completing the documents, forms, and questionnaires
- Time spent to complete electronic documents, forms, and questionnaires
- Time spent finding driving or travel instructions
- Time spent driving as well as sitting in traffic
- Time spent finding place to park
- Time spent finally parking
- Time spent walking from parking or bus stop or subway stop to office building
- Time spent finding actual radiology suite location
- Time spent waiting for elevators and walking to radiology suite
- Time spent until registration begins
- Time spent actually registering
- Time spent validating insurance eligibility
- Time spent determining copay and deductible amount
- Time spent collecting copayment, running charge card, and providing receipt
- Time spent reviewing referral slip for completeness that it included all federally mandated items

1. *Patient full first and last name*

2. *Date Rx being written*

3. *Actual study being ordered including details such as non-contrast or both pre and post contrast or only post contrast*

4. *Signs or symptoms or ICD10code*

5. *Physician's actual legible signature (not rubber stamp)*

- Time calling referring physician's office requesting a fax so electronic CMS- PECOS valid referral
- Time awaiting the busy referring physician to fill out new referral slip and have office send it
- Time awaiting the fax
- Time waiting until the patient is called in for the exam
- Time spent changing
- Time spent waiting for nurse to start IV, checking creatinine, reviewing the referral slip for clinical appropriateness of the study, appropriate contrast requests etc.
- Time walking or being brought to the exam room
- Time getting on the exam table
- Time of the actual exam (often this is the only item on the entire list that radiology facility pay attention to)
- Time needed to repeat any motion sequences for MRI
- Time needed for junior sonography techs have a senior tech review or repeat exam
- Time waiting if exam needs radiologist or supervisor review
- Time getting up from table and walking to changing room
- Time changing back into regular clothing
- Time walking to front desk for any exit instructions
- Time receiving instructions
- Time waiting for study to be interpreted
- Time waiting for staff to contact the referring doctor
- Time patient spends on phone receiving referring doctor instructions
- Time walking to car or bus or subway
- Time reaching home
- Time needed to contact the radiologist with any questions

Respect referring physician's time

- Time needed to find the referral pad
- Time needed to contact a radiologist with a question
- Time needed to fill in and complete the referral form
- Time needed to go online to complete the referral form
- Time needed to complete the referral process from EMR
- Time needed to obtain insurance company authorization
- Time needed to check if examination has been authorized
- Time needed to check if appointment has been scheduled
- Time waiting to receive electronic confirmation examination was indeed performed
- Time awaiting electronic results, calls from a radiologist, faxed or printed results
- Time spent trying to reach the facility for results
- Time spent trying to access the online portal for results
- Time trying to contact the radiologist for any questions
- Time spent conveying results and recommendations to the patient

Patient-centricity

Direct or indirect activities or actions that benefit the patient. My interpretation: Applicable to absolutely everything we do.

There are hundreds of published articles and editorials on Patient Centricity. Distillation (abbreviated list) from the published journal articles and editorials:

- Easy appointment scheduling
- Short waiting times
- Quick results
- Online results
- Attractive clean environments
- Well appointed waiting rooms, corridors, and examination rooms
- Radiologists being available and speaking with the patients and referring physicians
- Radiologists rounding on patients
- Radiologists serving on hospital executive management committees

What is quality in radiology?

Every item below contributes to quality, so none can be ignored.

Philosophical quality questions:

- Is quality definable?
- Is quality capricious, arbitrary, nebulous, or subjective?
- Is quality defined by one, two, multiple items?
- Is quality a mathematically inspired blended formula of some or many of all of the following?
- Should quality metrics be selected (marginalized and minimized?) so that any practice can meet those?

Equipment and software:

- Is quality having the most modern equipment?
- Is quality having equipment with the shortest scan times?
- Is quality having MRI with metal artifact reduction software?
- Is quality performing MRAs without risk of administering contrast?
- Is quality having and utilizing the superior (expensive) multichannel MRI coils?
- Is quality having and utilizing the most advanced latest, highest resolution MRI software?
- Is quality performing CT with the lowest possible dose of ionizing radiation?
- Is quality performing X-ray with the lowest possible dose of ionizing radiation?
- Is quality performing Mammography with the lowest possible dose of ionizing radiation?
- Is quality performing PET/CT with the lowest possible dose of ionizing radiation?

- Is quality performing PET/MRI over PET/CT to achieve the lowest possible dose of ionizing radiation?

Accreditation:

- Is quality having each modality accredited by ACR, ICANL, etc.?
- Is quality having ACR Diagnostic Centers of Excellence Accreditation?
- Is quality having Joint Commission Accreditation?

Radiologists:

- Is quality having the radiologists trained at the most highly revered academic medical centers?
- Is quality having the brightest radiologists providing the most accurate interpretations?
- Is quality having the radiologists being involved in research?
- Is quality measured by the number of publications the radiologists have?
- Is quality measured by the number of continuing education courses the radiologist attends?
- Is quality measured by the number of educational lectures the radiologist provides?
- Is quality the number of medical students the radiologists teach?
- Is quality the number of professional societies each radiologist lists?
- Is quality the degree of involvement each radiologist has within the professional societies?
- Is quality the radiologist's involvement with hospital or practice administration?
- Is quality the radiologist's involvement with hospital or practice management?
- Is quality the radiologist's involvement with hospital or practice strategic initiatives?
- Is quality the frequency of radiologists attending hospital or practice interdepartmental meetings?
- Is quality the involvement of the radiologists and ancillary radiology staff with the community?
- Is quality the frequency and availability of the radiologist communicating and being accessible to the referring physician?
- Is quality the ease of patients asking questions and speaking with the radiologists?

- Is quality having the radiologists call in all STAT results directly to the referring physician?
- Is quality having the radiologist call in any unexpected urgent findings directly to the referring physician?
- Is quality having the radiologist call in any incidental findings to the referring physician?
- Is quality the ease of the referring physician being able to reach and speak with the radiologist?
- Is quality the ease and ability of the patients to discuss their report directly with the radiologist?

Technicians, nurses, reception, billing, ancillary staff:

- Is quality having the nicest, kindest, and most courteous staff?
- Is quality having the most highly trained and skilled technologists?
- Is quality having technologists being licensed?
- Is quality having technologists pass certifying examinations?
- Is quality having technologists maintain continuing education?
- Is quality having the most highly skilled nurses starting every IV?
- Is quality having ICU and ER experienced nurses always present in event of contrast reactions?
- Is quality having nurses answer medical questions and handle difficult medical situations?
- Is quality having the nurses and technical staff explains the radiologic examination to the patient?
- Is quality providing assistance to the referring physician in obtaining the insurance company authorization?
- Is quality the ease of the referring physician or their staff being able to speak with the radiology nurse or technologist?

Physical office:

- Is quality having highly visible office locations on main thoroughfares that are easy to find?
- Is quality having office locations close to the patient's home or work?

- Is quality having locations that are easily accessible by public transportation?
- Is quality having the quickest and easiest parking?
- Is quality having highly visible and findable department in the hospital?
- Is quality having a clean attractive office?
- Is quality having a modern looking office?
- Is quality having a soothing comforting environment?
- Is quality having entertainment for patient's and family comfort before and during the examination?
- Is quality providing Wifi for waiting patients and family members?

Scheduling, registration, and reminders:

- Is quality having online scheduling?
- Is quality having online registration?
- Is quality having SMS, text, or email appointment reminders?
- Is quality sending annual mammogram reminders?
- Is quality sending out short-term follow-up reminders?
- Is quality following up on any recommended follow-ups?
- Is quality contacting any patient who has cancelled or missed a scheduled appointment?
- Is quality sending out missed appointment follow up reminders?
- Is quality the ease of a referring physician to schedule a STAT examination?
- Is quality having immediate examination availability for any patient who desires?
- Is quality having scheduling availability such as Sundays, Saturdays, early mornings, and late evenings?
- Is quality having examination availability whenever the patient wishes to come?
- Is quality having the easiest quickest patient registration process?
- Is quality having the shortest in-office patient waiting time?

Time:

- Is quality having the soonest appointment time availability?
- Is quality having the shortest registration time?
- Is quality having the shortest time walking from parking facility to the radiology department?
- Is quality the patient having the shortest waiting time upon arrival until initiating the examination?
- Is quality having the shortest overall time in the facility?
- Is quality having the quickest interpretation?
- Is quality having contemporaneous interpretation?
- Is quality having contemporaneous interpretation plus ability to immediately undergo any recommended follow-up examinations?
- Is quality having the fastest notification that results are available for viewing?

Examination results:

- Is quality having STAT study interpreted immediately?
- Is quality having the STAT results conveyed immediately to the referring physician?
- Is quality placing the referring physician on the phone with the patient while still in the radiology office to discuss STAT findings?
- Is quality the promptness of all report interpretations?
- Is quality the promptness of communication of results to the referring physician?
- Is quality the promptness of communication of results to the patient?
- Is quality the promptness of notifying a referring physician that reports on their patients are available?
- Is quality the promptness of notifying the patients their reports are available online for viewing?
- Is quality being handed the CD containing the images right after the exam?
- Is quality being handed the written report right after the exam?

- Is quality being handed the written mammography lay-person's letter right after the exam?
- Is quality the promptness of the referring physician receiving a telephone call of abnormal results?
- Is quality the promptness of the referring physician being notified via SMS or text that abnormal results await their review?
- Is quality the promptness of the referring physician being notified via SMS or text that any results await their review?
- Is quality the referring physicians having quick and easy online access to reports and images?
- Is quality the referring physician having report accessibility via mobile device?
- Is quality the patient being walked through setting up their results portal?
- Is quality the ease of the patient installing the Radiology App on their mobile device to receive notifications and view results?
- Is quality the patient having quick and easy online access to reports and images?
- Is quality the patient having report accessibility via mobile device?
- Is quality the ease and ability of the referring physician to forward their images and results to another physician?
- Is quality the ease and ability of the patient to forward their images and results to any physician?
- Is quality the ability of the referring physician and the radiologist to simultaneously remotely review the same images?
- Researchers?
- Theoreticians?
- Academicians?
- Yelp?
- Facebook likes?
- Online reviews?
- Google search analytics for compliments and complaints?
- General public?
- Patients?
- Referring physicians?
- All community physicians?
- Physicians on a national level?
- Radiologists in their own practice?
- Radiologists in competing practices?
- All radiologists in the community?
- Radiologists in the hospital?
- Radiologists in competing hospitals?
- Radiologists in all hospitals collectively?
- Hospital QA committee?

Who should define, characterize, benchmark, qualify, and quantify radiology quality?

- Legislators?
- CMS?
- ACR? ACOG? ACS? AMA? Other medical organizations?
- Insurance companies?
- Large multi-specialty practices?

What is value?

Merriam Webster:

1. The monetary worth of something
2. A fair return or equivalent in goods, services, or money for something exchanges
3. Relative worth, utility or importance: a good value at the price, the value of base stealing in baseball, had nothing of value to say
4. Something (such as a principle or quality) intrinsically valuable or desirable: sought material values instead of human

Oxford English Dictionary:

1. The regard that something is held to deserve; the importance, worth, or usefulness of something: "your support is of great value"
2. The material or monetary worth of something
3. The worth of something compared to the price paid or asked for it

What is value in radiology?

Radiology as a specialty must prove itself as being “of value” to the patient and to society as a whole:

- Proving Radiology as a specialty is of value should be our call to action
- Our radiology industry is currently positioned relatively defenseless
- We are attacked by economic analysis which often cite the high cost of CT, MRI, and PET
- Radiologists collectively need to strive to prove that what we do specifically in radiology, separate from all other medical and surgical disciplines is unequivocally of economic value to the patient
- Is unequivocally of value to society as a whole
- Is unequivocally of value to the insurance carriers

Proposal for three radiology value research projects

1) Let us start with hospital operating room schedules from 1950s through the 1970s. Filled with exploratory laparotomies, representing well over half the surgical procedures. Summate by extrapolation all the exploratory laparotomies that would be performed today. The cost of the surgery, operation room, anesthesiologist, hospitalization. The weeks of disability and loss of patient work related income. Now, compare that to the cost of all body CT scans performed on a national level. Thus we can establish the value of every single body CT scan. We do not need to go back to the 1970s to recreate the economic data analysis. We need a reputable school of public health with established credentials to undertake this mathematical exercise.

2) Next summate hospital admissions merely for observation for head trauma prior to the advent of CT. Include hospital cost, lost wages from work absences, etc. Apply those to the current cost of hospitalization. Compare that to the cost of all the brain CTs performed in the emergency departments.

3) Insurance industry, such as No-Fault in New York mandates a period of six weeks conservative care, physical therapy, and rest prior to approving the MRI. No doubt, there are significant numbers of patients who indeed get better without the MRI.

However they still incurred the cost of the physical therapy and sustained the loss earnings. The real question is what is the total cost of physical therapy, lost wages, etc. incurred by patients who had the MRI versus those who were able to avoid the MRI. I suspect by having an MRI performed earlier patient's return to work will be hastened – especially if normal (salvaging lost wages).

Significantly decrease the utilization of unnecessary physical therapy that was performed for the presumptive diagnosis when a true normal diagnosis could have been made.

- A significant component of savings will be decreasing patient's lost wages and time out of the work force
- A significant component of the savings will be quality of life improvement by resuming their (valuable) leisure activities
- Funding a research project needs reputable school of public health
- The results may be quite opposite current conventional wisdom
- Could save countless millions of dollars in the long run once the data is analyzed
- I suspect having the CT or MRI will be the far cheaper option if all aspects of the cost of care are included

Conclusion

Everything listed in the various sections above contributes to the overall patient experience. Select the applicable ones you are able to address and improve upon.

Contact

Steven L Mendelsohn, M.D.
Chief Executive Officer
Zwanger-Pesiri Radiology
150 East Sunrise Highway
Lindenhurst, NY 11757
USA
Phone: +1 631-444-5544 Ext 4444
slmendelsohn@zprad.com



Steven L. Mendelsohn, M.D., graduated from Jefferson Medical School in Philadelphia in 1979 shortly after his 23rd birthday. After completing his diagnostic radiology residency at North Shore University Hospital in 1983, he joined Zwanger-Pesiri Radiology as a staff radiologist. In 1992, he became managing partner of Zwanger-Pesiri Radiology – originally a small private practice group. Just five radiologists worked across two limited modality outpatient centers with a total office staff of 15 (including techs, receptionists, transcription, and billing).

From 1992 until 2002, Mendelsohn was chairman of radiology at Central General Hospital (renamed North Shore University Hospital at Plainview in 1995). At that time, Zwanger-Pesiri Radiology started to grow: Between 1992 and 2002, outpatient centers expanded from two to four, and later growing to eight between 2002 and 2011. Freed of the time pressure constraints of being the radiology chairman, Mendelsohn focused on expanding Zwanger-Pesiri Radiology even further. From 2012 until 2017, outpatient facilities increased to 24, each equipped with one or two MRIs, CT, mammography, X-ray, ultrasound, and DEXA systems. Five sites also have PET and nuclear radiology. All are located in New York, on Long Island and in Queens. Currently, six more facilities are under construction and several more are under architectural development.

Outside work, Mendelsohn enjoys skiing, snowboarding, hiking, biking, kayaking, sailing, and fitness. Of his six children, five already hold degrees from leading universities and have successful careers in various fields. The youngest is still at kindergarten – tracing letters and counting.



Zwanger-Pesiri Radiology,
New York, USA

Zwanger-Pesiri Radiology snapshot

For over 60 years, Zwanger-Pesiri Radiology has focused on patient-centered care, research, education, and a strong commitment to the community. Led by Steven L. Mendelsohn, M.D., the team of 1,100 professionals with over 60 radiologists, 45 nurses, 300 receptionists, 75 MRI technologists, 15 nuclear technologists, 150 X-ray and CT technologists, 110 schedulers, 80 billers, and 30 IT staff members is dedicated to providing state-of-the-art radiology services. The radiologists specialize in areas such as neuroradiology, musculoskeletal imaging, body imaging, and breast imaging. They work closely with referring physicians to ensure optimal outcomes for patients. To support them in their clinical work, they use high-end imaging equipment including one Siemens Biograph mMR PET/MRI, 25 3T Siemens MRIs (22 MAGNETOM Skyra, one MAGNETOM Vida, and two MAGNETOM Verio), nine 1.5T Siemens MRIs (six MAGNETOM Aera, two MAGNETOM Espree, one MAGNETOM Amira), five Siemens PET/CTs, and a myriad of other units from 3D mammography, to open-sided MRIs as well as countless ultrasound, X-ray, DEXA and ABUS units.

Zwanger-Pesiri firsts:

- First outpatient Biograph mMR PET/MRI scanner in the USA
- First outpatient 3T MAGNETOM Skyra MRI scanner in the USA
- First outpatient Dual Source SOMATOM Definition 256 CT scanner in the USA
- First outpatient 3T MAGNETOM Vida MRI scanner in the USA
- First radiology practice to provide patient results online
- First radiology practice to provide imaging free of charge for the uninsured