



Episode 4: "How can physicists meaningfully interact with administrators?"

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Questions & Answers

Q: These are all great tips. As a Residency Program Coordinator, where do I insert this topic into our curriculum or discuss these topics with our Residents?

Ehsan: Great question. I do it in the second year through a seminar series.

Q: Could you please comment on some of the common differences between private and government/public medical centers? Thanks.

Dan: I have not worked at a government center, but I have worked at private and public. The main difference I observed is that in a private setting there are fewer levels of bureaucracy. Decisions and budgets are controlled by a smaller group with less layers between the top management and front-line workers. Private centers are also for profit and how that profit is distributed can greatly affect the operation of the organization and morale of the staff. Is it a small group of owners or investors or employee owned? I will reach out to others with more experience in this area for their perspective.

Q: We argued that checking charts from home increases safety because we don't have that gap during the commute where we are not available to answer questions about charts.

Dan: That is an interesting suggestion. Not sure I understand the logic. Are you saying that your staff work more hours when working from home? Meaning if they are available for 9 hours a day either way then the commute is irrelevant. If that is the case then the benefit is solely for the person working from home. Not that I would be against that benefit as long as you showed no detriment to safety.

Q: When is it acceptable to go around your department head/chief physicist to talk to admin yourself?

Dan: This is a very delicate situation. My advice to staff has always been to work it out directly if possible. I realize that there are situations that result in an impasse. In these cases, make sure that you have clearly documented the steps you took to resolve the issue. Documentation by email would be helpful. Something along the lines of "Thank you for taking the time to discuss this issue (describe it). During the meeting solutions were discussed but no consensus was obtained. I would like to offer the following solution." If your solution is rejected or you get no response, follow up with "Could we please have a meeting with person X to mediate this issue?" If this still generates no response you can then consider going up the chain with some caveats. Make

sure that is not just an instance where you do not like a decision. It should be about patient safety, is there an issue of ethics or illegality, is there potential liability to the organization, is it a matter of harassment, etc.

Additional reading:

<https://hbr.org/2016/12/do-you-hate-your-boss>

<https://www.businessnewsdaily.com/9426-workplace-harassment.html>

Q: I understand your "no money, no mission" statements, but should patient safety be compromised at the expense of profits? For example, how is it justifiable not to purchase equipment and software for physics because we are not making the company any money?

Dan: *It is up to you to articulate the need and demonstrate through a business plan the feasibility of the purchases. I doubt many administrators would approve a purchase based on "we need this for patient safety". More properly a case is made by demonstrating time savings, efficiency, in exactly what clinical situations will the proposed solution improve safety and how, does it meet a regulatory or accreditation need, etc. Depending on the cost of the item (I have seen \$5,000 to \$100,000 thresholds) your admin will have to go before a budget committee to argue for and defend the expense. Do yourself and if you believe the purchase will improve patient care, your patients a favor by taking the time to methodically justify the cost. In addition, don't make your admin look foolish by having nothing other than "they said this was important". In fact, any good admin will refuse to put it forward without a proper justification. One place to start is by demonstrating the history of physics intensive advances such as IMRT and IGRT and their impact on outcomes.*

Additional Reading:

For an interesting perspective read the following and see the references cited. Improved Long-Term Outcomes With IMRT: Is It Better Technology or Better Physics? Michael J. Zelefsky, MD* and Joseph O. Deasy, PhD†, Int J Radiat Oncol Biol Phys. 2013 Dec 1; 87(5): 867–868. doi: 10.1016/j.ijrobp.2013.09.004"

Q: A physicist cannot make a case for showing that better safety improves outcomes, particularly in clinics where patients are not followed after radiation therapy. Therefore, it is very difficult to make a case for purchasing certain equipment to ensure safety. Physicians typically see treatment equipment as plug-and-play. They do not understand why we have to do so much testing when the same equipment is being used everywhere.

Ehsan: *This is absolutely true. Yet, that's why we need to be ready to make some prediction of eventual outcome, even if seems speculative from a "physics" standpoint.*

Dan: *I am puzzled by your statement "particularly in clinics where patients are not followed after radiation therapy". These must be non-accredited facilities since all accreditation programs require follow up. This is also a situation where the physicist can perhaps demonstrate value by helping to design a follow up program and tracking results. The enticement to doing this is that insurance will soon require it so you should get ahead of the game.*

Q: Assuming my CEO does not know about medical physics, how do you educate? How do you make aware?

Dan: *Start by volunteering for committees and contributing. If you lead a project that demonstrates improved quality or cost savings you will be recognized. If you have a residency program, ask the CEO to speak to the residents or even speak at their graduation. Ask your boss if you can attend budget meetings to learn the process but make sure you are quiet and listen at the meetings, save questions for after.*

Q: In your experience, how often is the technical component of treatment planning charges attributed to medical physics and medical dosimetry, if they are in the same group (line item in the budget)? If it is, I would assume Medical Physics & Dosimetry will have a very favorable operating margin.

Dan: *In my experience the administrators are aware of the contributions of physics and dosimetry even if they do not have a separate cost center. You can get a rough idea of the value if you know the volume of CPT codes charged. Medicare reimbursements for the technical codes are published online. Look at the 773xx codes.*

Private payers usually pay more but Medicaid may pay less so it will get you close. So that will get you revenue. For expenses you have salary plus benefits. Benefits are about 30-40% of salary. Do the math and you will likely see a 6-figure favorable margin.

Q: What if admin, presumably located in a big city with expensive real estate, push a "light asset" strategy and ask medical physicists to increase remote workdays against the will of the rad onc leadership?

Dan: *I would do a risk analysis of the proposal to demonstrate to all the safety or detriment to safety of that approach. Facts, not emotions or hand waving will make the case.*

Q: I've been discussing with my manager the tendency of medical physicists (and probably scientists in general) to include too much detail in communications with administrators/management. I was wondering if this is a problem in other centers and whether anyone has pertinent advice on how best to address it?

Dan: *What I have done in this regard is to include an executive summary at the very beginning. The audience is usually administrators or physicians. You want to focus on several key topics from their standpoint.*

1. Patient safety. Are there any concerns?

2. Regulatory or accreditation impacts. Are you in compliance with all applicable guidelines or regulations? Is the organization at any risk?

3. Clinical impact. For example, is the equipment released for clinical use, or based on our current staffing level we can perform x number of procedures per week or purchasing this equipment will save y hours of staff time allowing us to perform z number more of procedures per week. What is the impact on clinical operation of the information that you are trying to convey?

4. Financial impact. Cost and revenue? Staffing and equipment costs should be included.

Not all of these will apply to every communication. The summary should be no more than 1 page, preferably only 1/2 page. After this summary add in all the supporting details.