



The Case of the Solo Senior

Case by Dr. Kaif Pardhan

Case

Dr. Kaif Pardhan

Objectives / Questions:

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Expert Commentaries

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It was a busy night at Willow Wind Hospital, a large academic teaching centre. Sheila, one of the staff emergency physicians, was just finishing up her evening shift. She quickly looked up at the clock above stretcher #10. It was just five minutes before midnight handover; just enough time to complete her last duty of the night: Consulting the internal medicine resident for an admission of a hypoxic elderly woman with community acquired pneumonia.

It was a slam dunk case in her opinion. The patient had a room air oxygen saturation of only 85% despite several hours of treatment in the department. When she had initially arrived she had been hypotensive, delirious, short-of-breath and hypoxic. The initial septic work-up was complete, the patient had been appropriately resuscitated. Antibiotics and fluids had been initiated, and hours after she had arrived, she was now hemodynamically stable.

Sheila located Jose, the PGY-2 Internal Medicine Senior Resident, in the emergency consult room. He seemed to be diligently typing up a consultation, but seemed quite frazzled. "Hey Jose, how are you doing? I've got a quick consult for you. It's an easy one so shouldn't take long!"

Jose was already stressed but hearing that he had yet another consult to complete was making him panic. His stomach was in knots and he could hear his heart beating rapidly in his chest. He had always heard that "The Willow" had a very busy internal medicine service and his first senior call was certainly holding true to its reputation! His pager started going off at precisely 5:00 pm when he started his senior shift and hasn't stopped since. He'd already received 17 consults, not counting the 5 left over

from the day team. Several consults still needed to be triaged and he hadn't started reviewing with his juniors or medical students. He had just called his staff, Dr. Gupta, for the 11pm update. Not wanting to appear too needy, he told her everything was "going well".

Jose sighed and resignedly grabbed his pen and his new consults sheet. He looked up at Sheila, and softly asked: "Can this consult wait a few hours? It's been crazy and I haven't started reviewing the prior consults yet... and I still have several consults to triage."

"Sounds like you're having a rough night," Sheila responded, notably concerned. She could see Jose was overwhelmed and very stressed.

"Yeah, I have never had a call shift this busy before," replied José.

"Have you called your staff to come in for back-up?"

"I just got off the phone with Dr. Gupta... It's fine. I can handle it. Just give me the consult."

"Well, is she coming in to help out?" Sheila was a good friend of Mindy Gupta, the staff internist on call. Mindy was a rockstar educator, and there was absolutely no way that she wouldn't be right next to José slugging it out if she knew he was drowning. Everything seemed off. "Hey, you know I went to school with Dr. Gupta, I can text her for you if you'd like?"

"No, please don't. I'm fine. So what's the consult? I have to get moving!"

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Questions for Discussion

1. Whose responsibility is it to activate the back up for the Senior resident? Whether that be in the form of the staff or back-up senior resident?
2. What role does the emergency department play in making sure that consultant services are not overwhelmed on busy nights?
3. How might we create the conditions for senior residents in the hospital to be successful in managing large case loads? And how do we prepare them to take on this responsibility as they transition into independent practice?

Competencies

ACGME	CanMEDS
Professional Values (PROF1) Team Management (ICS2)	Professional Communicator Collaborator

Intended Objectives of Case

1. Discuss the role and nature of supervision in the resident-attending relationship.
2. Describe an approach to enlist additional help when patient care volumes are increased. Describe an emergency physician's role in assisting housestaff or attendings from other specialities.
3. List specific ways that we can prepare and teach senior residents to successfully manage increased workloads as they transition into unsupervised practice.

A Complicated Interplay Between Autonomy, Supervision, Trust, and the Hidden Curriculum

by Lindsay Melvin MD, MHPE, FRCPC

As a recent graduate of five years of Internal Medicine training, this case resonated deeply with me. Having spent many busy nights on-call as the Senior Medicine Resident, I am no stranger to the feelings evoked by this case. Now, as a newly-minted attending, I've watched these situations unfold from a different vantage point.

The issues at play in this case are complicated and merit unpacking. There is a complicated interplay between autonomy, supervision, trust, and the hidden curriculum that creates a tangled web that residents must navigate in the on-call environment. Most internal medicine residencies in Canada feature on-call duties where senior residents function independently. These residents act as supervisors of a call team and are responsible for admissions to the internal medicine inpatient service. Clinical supervisors entrust trainees to assume this high-level role, though traditionally this trust is the 'presumptive' default and based solely on credentials of the trainee as a PGY-2.¹

Yet, despite the enormous trust placed in these trainees, the on-call senior role is fraught with complexity. Seniors must balance the demands of patient care, flow, education of juniors and political hospital issues. Supervision occurs in the distant background; most supervisors are available by phone, as in this case, and review cases in full after the shift. Centre-specific cultural and institutional practices vary, however, with respect to the degree of back-up support from other residents and supervising attending physicians.

The careful balance between autonomy and safety can be difficult to achieve when supervisors set an expectation of arms-distance supervision. Most senior residents can recount at least a handful of stories like Jose's; most have experienced uncomfortable moments on-call when support was desired or needed, but not requested. Here, the hidden curriculum rears its ugly head: asking for help is feared and seen as an admission of weakness or ineptitude.² Residents gradually learn to develop their own thresholds of uncertainty and comfort; anecdotally, it is often the more seasoned senior residents who are comfortable calling a supervisor to discuss a complicated case or ask for help. Fostering good self-reflective skills in residents facilitates the meta-cognitive skills that allow them to function safely and autonomously. Supporting them in asking for help if needed is one of the first steps towards achieving this goal.

A number of additional uncertainties may contribute to a resident's reticence to access back-up support; it may not be clear how late a resident could activate back-up, whether the attending would be willing to come in to hospital, and what the implications would be for the person who provides back-up and their schedule. These factors likely contribute to residents' unwillingness to tap into available resources.

Despite variations in the structural availability of call support, there is one clear constant: residents are learners operating under indirect supervision. Framed this way, it is inappropriate and unnecessary for a trainee to struggle alone through an impossible workload to the detriment of patient care. Research has shown that though supervisory practice in internal medicine may vary, supervisors often would prefer to be involved in difficult situations sooner than later.³ As a new attending, I certainly prefer knowing that my residents will call if they are uncertain or overwhelmed. Ultimately, patient safety must take the priority, but when and how do we determine if the workload is too great for a senior resident to be managing solo? There is no uniform answer. It will depend on the individual resident and the clinical and institutional context.

Taking these factors into consideration in addressing the first question, there is a bidirectional responsibility to ensure that a senior resident is operating safely under indirect supervision. Both supervisor and resident share the duty of keeping an open line of communication and determining when the workload is onerous. A guide such as the SUPERB/SAFETY framework, can be useful in helping supervisors and residents navigate this murky ground in practice.⁴ Enacting such a framework depends critically on clear communication and trust between supervisor and resident; the supervisor must be available and willing to provide support, and the resident must be willing to make the call without fear of judgment or consequence. Supporting a positive learning relationship serves to enhance patient care and safety.

The emergency department can also provide support such that residents, acting for their consulting services, are not overwhelmed on busy service nights. Acknowledging that the call shift is busy, and aiding where possible, can be immensely helpful. Support from emergency department staff can be as simple as instituting initial management until clinical stability. Explicitly recognizing that the emergency attending is an established clinician who can provide support or guidance if a consulted patient is deteriorating in the department can alleviate

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apprehension for senior residents. The very best support given to me by the EM attendings on busy call nights was knowing I could ask for their help if needed. At times, I did ask for it. Fostering collegial relationships between the Emergency Department and consulting services is not only good clinical practice, but significantly supports residents in these stressful situations.

There are few experiences that can prepare senior residents for heavy workloads short of surviving a tough call night. Triage cases, coordinating patient care, leading a team of learners, and navigating hospital politics, while grueling, all contribute to making the on-call experience educationally rewarding. Residents must be able to experience this in a safe educational environment. Preparing residents for success in this realm must address the hidden curriculum at play. We must make explicit the fact that clinical uncertainty is accepted and common, that help is only a phone call away, and that supervisors do not expect residents to be fully independent practitioners when they cover call at night. In building a positive learning climate through open communication and supportive, collegial working environments, we enable residents to safely learn and grow from challenging clinical situations.

References

1. Ten Cate O, Hart D, Ankel F, Busari J, Englander R, Glasgow N, et al. Entrustment Decision Making in Clinical Training. *Academic medicine : journal of the Association of American Medical Colleges*. 2016;91(2):191-8.
2. Hundert EM, Hafferty F, Christakis D. Characteristics of the informal curriculum and trainees' ethical choices. *Academic medicine : journal of the Association of American Medical Colleges*. 1996;71(6):624-42.
3. Farnan JM, Johnson JK, Meltzer DO, Humphrey HJ, Arora VM. On-call supervision and resident autonomy: from micromanager to absentee attending. *The American journal of medicine*. 2009;122(8):784-8.
4. Farnan JM, Johnson JK, Meltzer DO, Harris I, Humphrey HJ, Schwartz A, et al. Strategies for Effective On-Call Supervision for Internal Medicine Residents: The Superb/Safety Model. *Journal of Graduate Medical Education*. 2010;2(1):46-52.



About the Expert

Dr. Lindsay Melvin (@LMelvinMD) is a General Internist at the University Health Network in Toronto, Canada. She recently completed her General Internal Medicine subspecialty training at the University of Toronto after finishing her core residency at McMaster University. Lindsay also recently completed her Masters of Health Professions Education at Maastricht University. Her academic interests include workplace-based learning, resident assessment and technology in learning.

Prioritizing Patients First

by Alim Pardhan MD, FRCPC, MBA

This is a highly relevant case in busy academic centers. It does also transcend into being an attending physician when you are on solo call overnight for a busy service both in Academic Centers as well as in community sites. As with most of these types of challenges, there is no one cause or one party to blame, and much of the problem is rooted in cultural norms.

There are some important issues that should be considered when looking at this case:

- What are the overarching priorities when trying to fix this problem?
- Who are the players involved in the case?
- Why don't attendings or other backup mechanisms get activated?
- What solutions are possible and who should be involved in operationalizing them?

The first important question, is **what are the overarching priorities** that should be considered in this case. This case highlights several important issues that should be addressed:

- Patient care is ultimately the reason we pursued medicine - patients deserve timely and appropriate care and any solution that is considered must first and foremost prioritize the patient.
- For academic centers, education is also important - the philosophy of graded responsibility is in place to ensure that residents have increasing professional responsibility, while still having a safety net and back up in place to ensure good quality care. There will also be some variation in the capabilities of different residents
- Patient Flow - Hospitals are becoming increasingly interested in flow through the Emergency Department (ED). There are several reasons for this, and many jurisdictions now have implemented payment structures where hospitals are financially incentivized to move patients through the ED quickly. Consultant services also feel this sense of urgency when seeing patient and know that their pace will affect the space allotted for new patients arriving in the ED.
- Surge Capacity - How do individuals and systems respond to surges in either patient volume or acuity, how is this taught and what steps are taken to mitigate it when it happens?

The second question that needs to be addressed is **who the stakeholders are**. The obvious ones are the ones listed in the

case, namely the Senior Resident, the Emergency Physician and the attending for the Internal Medicine Service. In addition to those are several others:

- **The Senior resident group in general** - although only one resident is named in the case, it is likely that part of the reason that residents don't call their backup is cultural so it is important that this group be considered instead of the individual
- **The Attending group for the consulting service** - As with the resident group, it is important that the attending group be considered in its totality
- **The Emergency Medicine Physicians and Residents**
- **Staff in the ED and In patient units** - Both groups will contribute to the workload of the Senior Resident and so should be considered.
- **The Educational Program** - Although working clinically, much of the structure of the teaching units and teams comes from the educational programs. This structure is often the group that is in the best position to advocate for the resident group.

It is also important to note that the ED is unique in a number of ways. In particular, unlike most other parts of academic hospitals, there is always an attending physician present in the ED. We not only ask, but also expect that our learners will find us if there is an issue with a patient.

The reasons that **consultant residents are hesitant to call for backup** is likely multifactorial. Some of the major reasons likely include:

- They want to show that they are autonomous and ready to handle whatever is thrown at them on call
- They don't want to appear "weak" in front of their team or their attending physician
- They are concerned that they will be berated or that their attending will be upset at them if they call. Often this has happened in the past (either to them or a colleague) and then gets propagated among the resident group.
- They are concerned that it will affect their evaluation or their progression through the program
- They are concerned that it may affect their chances of attaining a desired fellowship
- They don't want to bother the attending.

There is certainly a cultural component that should be noted. If the culture of the program or service is that residents don't call

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their attending physicians this will propagate through both the resident and attending groups. Changing cultures can be challenging as it will permeate through most interactions.

Taking all of this into account, there are a **number of solutions** that are available to potentially address this case. As with most of these cases, the process around making change is just as important as the change itself. A suggested process would include:

- A meeting of the stakeholders to determine the true root cause of the issue
- The development of targeted solutions
- A Plan-Do-Study-Act cycle to trial these new solutions to see what works and does not

Given the system-based nature of the case, it is likely best to start with **systemic solutions** as these will often yield the most sustainable outcomes. Standardization and forcing functions are likely the most effective means of affecting change as it is less dependent on individual behaviors:

- **Human Resources** - Is there sufficient back-up on call overnight to manage the volume of referrals? Although this seems intuitive, it would be interesting to look back and see if the number of people on call has changed over the last 10 years compared to the increasing number and acuity of the referrals. In addition to this, is the individual call model the best model to see patients overnight vs. a team of providers?
- **Escalation Process** - Is there a clear escalation process in place regarding activating back up call? One of the ways to address any cultural barriers is to ensure there are clear criteria around when backup should be activated.
- **Mandated Check Ins** - In a similar way to the above, are there mandatory check-in times with the attending? This does not necessarily have to be with the Senior Resident, but could also be with the Charge Nurse, ED Physician etc. The attending could get a sense of how many patients have been referred, how long they have been waiting etc. They could then use this information, along with knowledge of their team to determine if extra help is needed.
- **Expected Tasks Completed After Hours** - Are there clear expectations about what needs to be completed after hours? This solution may seem slightly more

radical. If there is a stable patient that clearly needs to be admitted - is there value in completing every aspect of the history/physical/med check/additional investigations overnight when both the team and the patient are tired. An alternative option would be a quick history and physical, confirmation of stability then a quick admission with the rest of the tasks being completed in the morning by the incoming team.

- **Appropriate Consult Criteria** - Are there clear guidelines about which types of patients go to which service. Many hospitals have admission algorithms to ensure that the work is divided amongst services and provides a clear path for the emergency physician when determining appropriate disposition.
- **Resident Call Criteria** - For non-referral calls - are their clear guidelines around when to call the on-call team? For example - the on-call team should be called for X, Y, and Z, non-emergent issues can be placed on a list for the day team to manage.

Potential Solutions

In addition to the systemic issues, there are also **individual level solutions** that could be used. For the sake of simplicity, these are divided out by stakeholder group. There is some overlap.

Senior Residents

- Determine in advance when you should contact your staff person - how many patients behind, what kind of wait times, what types of issues, what times just to check in etc.
- Know where you can get help if things start to slip e.g. The ED Physician and the Charge Nurse can often be great resources!
- When calling back-up resident or staff physician, be clear about your needs - "I need you to come in" is a much more powerful statement than "we are busy". There are several tools that exist to help frame these discussions - SBAR is one that is well known (Situation, Background, Assessment, Recommendation)

Consulting Services Staff Physicians

- Ensure that your team knows when you want them to call - e.g. this many consults, this far behind, these types of situations - it does not mean you have to go in, you

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can often problem solve with your team about how best to manage it. Also be clear that you expect them to call – give them permission in advance to call you.

- Check in with your team at pre-determined points in the night
- Check in the ED Physician or Charge Nurse – they can often give you a sense of how many consults are pending and how many are likely heading to your service
- Be clear with your team about what needs to happen overnight. Are there somethings that can be deferred to the morning
- Don't get angry or upset with your team when they call (easier said than done) – Always say, "thanks for calling". If there is something that could have been deferred – this is a teaching point for later, although perhaps not first thing in the morning with the post call team

Emergency Department Staff

- Be aware of how busy the consulting services are. Although it may not change the disposition of the patient, it may help in terms of pacing of referrals, how long you hold them, prioritizing consults for them etc.
- Ensure work ups and treatments are as complete as possible before referring – it helps off load some of their work – especially if they are busy.
- Be available to assist if referred or admitted patient deteriorates in the ED, encourage those teams to let you know if they need help. You want to know what is happening in your department and it is a huge comfort to them knowing they have the help available if they need it. In the words of Dumbledore – *"Help will always be given in the ED to those who ask for it."*
- Be willing to call the Attending for another service if that resident is clearly overwhelmed and/or are uncomfortable calling themselves. It may also help to say – "tell your attending, I asked you to call" as it shifts the responsibility to us. They often do want to know if their team is overwhelmed.

Educational Programs

- Ensure residents know how to use/lead their team effectively as well as what to do if there is a surge in volume of acuity. These are learned skills and can be taught and fostered.
- Ensure faculty are supportive of residents who do call for help or back up
- Ensure residents know what they must notification the attending, both from a departmental, hospital and regulatory authority standpoint.
- Celebrate faculty who provide excellent support to their teams after hours.

Medicine is a team sport, no one group or person can be expected to be responsible for surges in patient volume or acuity. Culture is hard to change however it can be done using a combination of individual steps as well as overall systemic fixes and forcing functions.



About the Expert

Dr. Pardhan (@AlimPardhan) is an Emergency Physician at the HHS and McMaster Children's Hospital in Hamilton, Ontario. He is the Program Director of the McMaster University's Royal College training program in Emergency Medicine and is the physician site lead for the Hamilton General Hospital Emergency Department. Alim graduated from the University of Manitoba Medical School and completed his residency in Emergency Medicine at McMaster. He subsequently completed an MBA at the Richard Ivey School of Business. His interests include medical education, physician leadership and hospital administration.

Curated Community Commentary

By Alkarim Velji MD, FRCPC (candidate)

This case takes us to Willow Wind Hospital where Sheila, a staff emergency physician, has a revealing encounter with Jose, a PGY-2 Internal Medicine resident. Sheila approached Jose to tell him of another consult, a "slam-dunk" admission in her mind. She's unfortunately met with a resident who appears significantly overwhelmed at the volume of consults he has received over the span of his call shift thus far. Sheila suggests that Jose call in his attending for support and even offers to call the staff herself so that Jose is spared the task. Jose steadfastly insists he's fine and rushes head first into his increasing list of to-dos.

Discussion online focused on frontline strategies that residents can apply, tools that supervising attendings can employ, and finally ideas for broader cultural changes.

Drs. Melody Ong and Stella Yiu both pointed out that residents worry asking for help may be perceived as a sign of incompetence. Commonly, many residents are worried about building a bad reputation that could jeopardize their chance for a desired fellowship. Our consultant colleagues commented that residents who have insight to ask for help when feeling overwhelmed is a skill that they admire and appreciate. Prioritizing patient care over pride was also valued. Dr. Shawn Mondoux, via Twitter, compared an unsupervised resident to that of an apprentice mechanic on an airplane. An apprenticing mechanic is never allowed to do work on an engine of a plane without supervision. Yet, we somehow allow our residents to make significant medical decisions without appropriate oversight. Our discussants felt that a key competency that was imperative to develop during medical training was a way to appreciate when one is 'in over your head'. Many of the attending physicians acknowledge that residency is a balance between learning autonomy and having appropriate supervision to ensure patient safety. However, residency cannot be entirely about being autonomous practitioners. Residents are learners after all.

Dr. Yiu suggests that, on the frontline, emergency physicians can help foster this balance of autonomy and appropriate supervision by engaging overwhelmed residents about how they can deal with their huge list of consults.

Drs. Eric Woolorton and Therese Mead reminded readers that attendings *want* to know about sick patients and what is going on in the department *as soon as possible*. The responsibility of the consulting service attending is to enforce a culture that encourages residents to ask for help. Therese Mead suggested that clear expectations be set with the resident (similar to how most EM attendings set guidelines with their residents before the shift starts). Some attendings prefer to call residents in the evening as a 'pulse check' - allowing attendings to check in on number of sick patients and pending consults. Dr. Neary tweeted that staff need to call in proactively and make their own decisions to come in. Staff should not wait to be called in.

Contributors

Thanks to the participants (in alphabetical order) for all of their input:

"Josh"	Eric Wollorton
Alia Dh	Stella Yiu
Ed Kwok	
Nick Johnson	
Lauren Licatino	
Tamara McColl	
Terese Mead	
Shawn Mondoux	
Heather Murray	
John Neary	
Melody Ong	
Kari Sampsel	

Many commentators argued that the problem of the overwhelmed "solo senior" cannot be fixed by simple frontline situations. The solo senior is an example of a problem that requires more systemic and cultural fixes.

Dr. Ed Kwok argued that fixing the problem should not fall to frontline personnel but rather to leadership who can advocate to senior hospital admin. Larger issues need to be addressed. Dr. Sampsel listed off many issues that may have compounded this scenario, such as: inadequate daytime staffing (causing overflow onto evenings), clinics that are double-booked, CTU "teaching" lists that are too big, ED and medicine staff allowing every other service to turf their consults to medicine, and subspecialty medical services deferring to general medicine overnight. Addressing these systemic issues could help to alleviate the issues faced by our overwhelmed solo senior.

Suggested Strategies for Success

The following suggestions were gathered from the online discussions from Twitter and the blog comments:

- **Being the Bad Cop:** Dr. Yiu suggested that EM attendings approach residents and give them permission to call for help. Residents can then call for support and 'blame' the emergency physician who is requesting that back-up be brought in. This tactic gives the resident 'permission' to call for help while mitigating resident anxiety.
- **Nocturnists:** A strategy that is employed at some sites is to have on-site night time attendings. The issue with this is that it can limit resident autonomy. However, it provides in-house backup that helps with flow

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- **A Call is Better than A Surprise:** Residents should be indoctrinated into a culture where they never hesitate to call their staff back-up. As Dr. Johnson says, "I never wake up mad and would much rather be awoken at night then surprised in the morning."
- **Staff-initiated Check In:** Staff calling residents in the evening to check on consult numbers and independently making the decision to come in and support.
- **Developing Protocols:** Josh, a paramedic, points out that front line change in this situation, on a person-by-person basis is ineffective. He suggests the development of a clear admission algorithm and escalation policy. He compares the issue of the overwhelmed screener to that of paramedics with offload delay. After 30 minutes of delay, a set event must happen. For residents, it is helpful to have a set policy about the when to call for help - be it number of consults behind, hours before a consult can be seen, or any number of reasons. After a clear policy is set, residents do not have to feel like they are incompetent - they are just following protocol.

About

The Medical Education In Cases (MEiC) series puts difficult medical education cases under a microscope. We pose a challenging hypothetical dilemma, moderate a discussion on potential approaches, and recruit medical education experts to provide their insights. The community comments are also similarly curated into a document for reference.

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Purpose

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