The Impact of a National Shortage of General Surgeons

A nationwide survey reveals that the number of general surgeons has dropped 25% in the past 25 years. A continuation of this decline could have profound implications on patient populations that depend on general surgeons. What are the key demographics concerns surrounding a national shortage of general surgeons.

HOST:
Dr. Mark Nolan Hill, Professor of Surgery and practicing general surgeon.

GUEST:
Dr. Dana Christian Lynge, Associate Professor of Surgery at the University of Washington School of Medicine and practicing general surgeon. Dr. Lynge is the lead of the research published in the Archives of Surgery on the national shortage of general surgeons.

**Dr. Nolan Hill:**
Welcome, Dr. Lynge.

**Dr. Lynge:**
Thank you for having me.

**Dr. Nolan Hill:**
We are discussing the impact of a national shortage of general surgeons. Dr. Lynge, is there a national shortage of general surgeons at this time?

**Dr. Lynge:**
We know that there has been proximately a 25% decline in the number of general surgeons per 100,000 Americans that has occurred over the past 25 years. So if you look at the numbers, you have fewer general surgeons per 100,000 populations than we had 20 years ago (01:30) and that is in the background of the baby boomer population reaching its geriatric years when we know there is good evidence in literature that demand for services of general surgeons goes up. To really say, however, that there are not enough general surgeons means you have to be able to document that there is not enough general surgical services being provided and so then you really have to measure if people do not have access to enough general surgeons and that is not something we can prove in our paper; our paper addresses manpower, but common sense would say there is a shortage and then if you look at other stuff in the literature you see all kinds of reports about hospitals, urban and rural, having difficulties getting general surgical coverage for emergency surgery and trauma call. You have many papers in the literature particularly by <____> et al from upstate New York citing hospital administrators in rural hospitals talking about their difficulties recruiting any general surgeons at all to practice in rural communities, even though it is really difficult to measure adequate provision of
services if you look at our manpower numbers in combination with reports from around the country, I
would say there is pretty good evidence (3:00) that we are facing a shortage of general surgeons. The
<_____> in that is, and will probably get into this discussion later is that a lot of people who went on to
do some specialty training now, whether it is in colorectal surgery, surgical oncology, etc., after general
surgery service training whether they continued to practice some general surgery as a part of their
surgical practice is an unknown and in some areas if they cancel their practice with their sub-specialty,
probably do, and so that in urban areas at least may fill in some of the shortfall, in rural areas where
there is much fewer surgical sub-specialists and where really general surgeons provide the bulk of
surgery services besides orthopedics and Gyn, there really is no replacement for those individuals and
based on our previous studies and reports from around the country, I would say that there is already a
marked shortfall of general surgeons in those areas.

Dr. NOLAN HILL:

Well, what would be the argument about someone saying well, okay someone comes in with a breast
problem, they go to a breast surgeon; has a colon problem, they go to a colon surgeon; have a hernia,
they go to a hernia surgeon, etc., etc., etc. In other words, what would be the argument against
someone coordinating that type of care for surgery?

Dr. LYNGE:

Well, I do not know that there is an argument against this and it may be well what will happen
increasingly in the future and what is already happening in some places in (04:30) rural areas;
however, you are not going to have all those various different sub-specialized practitioners, I mean that
the population is not going to support it and so rural general surgeons have traditionally provided a
pretty wide variety of general surgical services, abdominal surgery, breast surgery, soft tissue surgery,
trauma, and even at times if there was not orthopedics, urology, or Ob-Gyn, they would provide some
of those surgical services as well depending on their training. The argument in rural places it is just not
going to happen, and as you know, one of the arguments made for increased sub-specialization is
volumes outcomes. If you do one procedure or two procedures a lot, you are going to have better
outcomes and that is a tremendously complex body of literature and fraught with controversy, but the
Leapfrog Group, and many people have latched on to it, and so you can foresee a situation where
somebody would be a general surgeon in a rural place and they would say while you can take care of a
trauma and you can do a few hernias, but you cannot do any colon resections because our data shows
that if you do not do more than 20 per annum and do it in a large volume center, etc., your outcomes might not be as good and of course that is going to make it even more difficult to attract people to practice in rural places. In urban places, the scenario you have set out may be on the way, (06:00) certainly in large hospitals there are colorectal surgeons, there are general surgeons, there are people who devote their practice to breasts only, hernia only. The problem there is that if those individuals choose not to cover general surgical emergency call, it makes it increasingly difficult for the hospital to find coverage for patients who come in, in the middle of the night with perforated diverticulitis, appendicitis, perirectal abscesses, and stuff like that and so this sort of <_____> people practicing general surgeons makes it difficult to provide urgent care. One of the solutions that is happening in some urban areas, in both academic and nonacademic practice, is the emergence of the so-called surgical hospitalists and, that is, somebody is either hired specifically for that purpose or each member of a group taking a turn covering all emergency room and/or consultant putting in lines and dealing with all the surgical emergencies for a defined period of time whether it is a 12 or 24-hour shift so that the hospital can provide coverage for those and that the other surgeons can get on with their elective surgical schedule on clinics without being disturbed.

Dr. NOLAN HILL:

(07:30) Dr. Lynge, does the public view a general surgeon as doing, let us say, a colon resection or a hernia operation or a breast surgery as not being as good as someone who calls themselves a hernia surgeon or a breast surgeon, etc.?

Dr. LYNGE:

I cannot really answer that. I think in an era though of increasing specialization, increasing marketing of medical procedures, and an increasingly sophisticated medical consumer, it stands to reason whether it is justified or not that especially in large urban areas if somebody advertises themselves as the "hernia – centre of excellence," then that is going to carry some weight rightly or wrongly and may work to the disadvantage of the practicing general surgeon.

Dr. NOLAN HILL:
Now, I have always thought that there was a distinction between the medical critical care specialist and the surgical critical care specialist and something that was always strongly emphasized in general surgery as the ability to be able to be a quarterback and when things start going crazy, and you know what I mean, in trauma situations or if patient has a multi-system organ failure, secondary to surgical issues (09:00) it is usually the general surgeon who steps forward and takes over and it leads, directs care to the appropriate specialists or handles it themselves. Is that whole concept becoming archaic?

Dr. LYNGE:

I do not know if it is becoming archaic, it is changing somewhat. I believe in my scope of practice, I work at VA for a university, so I do not have as much exposure as what is going on in the community, but in more urban areas in large hospitals both academic and nonacademic the critical care specialists are more and more prevalent in our own hospital. For instance, we have gone to having a unit which is covered by a critical care team which has elements of general surgical/critical care staff, anesthesia critical care staff, and medical critical care staff. So it is no longer just the general surgical team taking care of their own patients exclusively. We have input, but we do not do all the day-to-day stuff and even at HarborView, which is a trauma centre they have gone to a closed unit model as well, albeit with a model that I think has only general surgical/critical care staff. So in smaller hospitals and in rural areas though I think it is still going to be the general surgeon who is going to be the most knowledgeable person in terms of critical care and is still going to be taking care of their patients in the (10:30) ICU as well as out. In a lot of large hospitals, I think that is changing with the advent of closed units and critical care team, the staff of which may involve some general surgeons, but will certainly involve also medicine/critical care and anesthesia critical care practitioners.

Dr. NOLAN HILL:

Well, what do you think about that closed system?

Dr. LYNGE:

To my mind, it is too early to tell here, I am only just seeing the beginning of it. I think it has some theoretical advantages in that you have a critical care attending rounding twice a day in the unit and being there omnipresent and driving forward, stuff like extubation and getting people out of unit and moving things along and paying attention to stuff which in the old model we would see them at the
beginning of our operative day and at the end, that is the pros, and again you kind of got a way to see how patients do is what the data shows. I think the commonsense con is that if as a surgeon you are still the person who really knows what has happened to them in terms of the operating room and may have a slightly better sense about what to worry about, though you still need to pay attention even though another team is running their management and you need to stay in close communication, also I think just by virtue of their education the medicine and anesthesia critical care practitioners are not, even though they are more sophisticated, sometimes in terms of certainly ventilator management and pharmacological management, (12:00) they are not as focussed on volume resuscitation issues as perhaps we are, so it requires a lot of staying on top of things regardless in communication. Whether it will result in better patient outcomes, I do not know.

Dr. NOLAN HILL:

I want to thank our guest Dr. Dana Christian Lynge. We have been discussing the impact of a national shortage of general surgeons. Am Dr. Mark Nolan Hill and you have been listening to The Clinicians Roundtable on Reach MD at XM 157, The Channel For Medical Professional. Be sure to visit our website at reachmd.com featuring on-demand health cares of our entire library. For commends and questions please call us toll free at 888 MD XM 157. Thank you for listening.