**WSA Discussion of 2022-347**

**Residents Perform Laparoscopic Cholecystectomy with Acceptable Outcomes When the Attending Surgeon Is Not Scrubbed**

**DR JASMEET PAUL** (Albuquerque, NM): Was there common bile duct injury or cystic duct stump leak in either group? Those complications were not specifically addressed. Your data also suggests that the proportion of attendings who were scrubbed had increased from around 65% in the beginning of the study to over 90% at the end. To what do you attribute this dramatic shift? Are attendings really scrubbing in all these cases, or is this an issue with the way the data was initially entered in the early days of the Veterans Affairs Surgical Quality Improvement Program (VASQIP) database? We all know that a laparoscopic cholecystectomy is a team sport; you need 2 or 3 people involved in the operation. So, when the attendings were scrubbed in, what was their role? Were they holding the camera, holding the fundus, or were they the primary operators? If they were not the primary operator, then they were probably giving oversight and general technical direction, which they could also do while they were not scrubbed in. In many programs, senior residents act as teaching assistants for mid-level or junior residents for laparoscopic cholecystectomy. Does the VASQIP data capture residents operating together? If so, are the attendings less likely to scrub?

This is an important paper that shows that the level and extent of resident involvement in this common general surgery operation does not add significantly to the operative time or complication rate.

**DR MARSHALL BAKER** (Chicago, IL): As we often find in this type of study, we are trading statistical power for granularity. As Dr Paul suggests, we would ideally like to have better information about rate of bile duct injury and the level of attending involvement in the cases. Unfortunately, given the limitations of the dataset, we cannot get that kind of information. We do not know how many bile duct injuries occurred. We do not know how many cystic duct leaks there were. We cannot tell what the attendings were saying when they were scrubbed at the bedside, what they were saying when they were not at the bedside and not scrubbed, or what they were doing when they were at the bedside scrubbed. We also cannot account for the effectiveness of having multiple residents involved in the procedure, and we cannot really control as much as we would like to for case complexity.

Having said that, I think there are a couple of observations that we can safely make that have value to our community. The opportunity for independence is declining and has continued to decline for many years after the induction of work hour limitations by the Accreditation Council for Graduate Medical Education. We think that there are multiple factors driving this trend, many of them socioeconomic forces, that are increasing the amount of pressure attendings face regarding their own productivity and efficiency, meaning that they were repeatedly asked to do more with less time. We think this is affecting the ability of attendings to give in the operating room.

I think we can also safely say that an approach where you give the resident as much independence as is safe and reasonable, meaning that the operative times are not that much longer when this approach is taken and the complication rates are statistically identical, is ideal. We fully recognize that in many cases where the attending gets credit as scrubbed in were probably cases where they started out not scrubbed in and then took over, so the time may be shorter than it would otherwise be. But we think it still reflects the fact that if you allow the resident to have as much autonomy as they can have, you can keep the case lengths to a reasonable time and the complication rate to a reasonable level. We think data has not been presented in any way before now, and that it suggests that we ought to try to work as hard as we can to preserve these opportunities for trainees, as we all recognize that they are crucial opportunities in terms of developing proficient operators who graduate from our programs.

**DR SHERRY WREN** (Palo Alto, CA): I am the current chair of the VA general surgery advisory board so please consider my comments with that in mind. The VA has policies and procedures that actively discourage resident autonomy. The historic practice of resident-based care with the attending available by phone is a thing of the past. Years ago, the VA mandated that the attending be in the room for the operating room time-out. This signaled the end of operations that could be performed without an attending in the hospital. Presently, the VA tracks attending participation in cases, and if you are logging too many cases where the attendings are not scrubbed, this may result in an inquiry. This policy can be viewed along the ethical line that it is not right for the patients: residents are trainees, and thus are not independent practitioners. I applaud you on trying to put the data together, but there are several missing factors. What are your thoughts about the changed VA practice regarding attending surgeon involvement?

**DR MARSHALL BAKER** (Chicago, IL): We are aware of that, and we are not advocating that the attending not be present or involved, but we feel that it is an environment where they can be more passive in a way that is appropriate and safe and important as a mechanism for allowing young doctors to develop. I think we need to find a way to advocate for that. I am, as many in the audience will know, a very hands-on person. I get criticized for it all the time but having transitioned into a more active role at the VA in Chicago, I think it is essential that we allow the trainees to have a certain degree of independence in the operating room. I feel that it is safe and can be done in a reasonable and high-quality way.

**DR BEN JARMAN** (La Crosse, WI): I would like to plug entrustable professional activities, which are on the horizon and will hopefully be a tool that can help us gain ground on this front. The ability to trust residents to do certain clinical tasks would be powerful as an outcomes measure of our residency programs and confirm that our graduates can practice independently. We at Gundersen have a 10-year history of re-establishing a chief service, which is an amazing system to provide independent practice for our chiefs (with appropriate supervision) and we have great outcomes and great patient care satisfaction. It has been my impression over the years that patients would rather see the continuity of an individual resident through their phases of care than an attending surgeon. We must use studies like this to support the provision of autonomy in residency. This is a call to action to re-establish chief-level rotations that do have some autonomy built in where patients have 100% continuity of care. This can be done regardless of your healthcare system. I recognize that this is more of a comment than a question, but I am just wondering what you plan on doing next, based on your findings.

**DR MARSHALL BAKER** (Chicago, IL): I intend to go back to our institution and do my best to give trainees a chance to do what they can in the operating room. And I think we should all do the same thing in our own environments. I also think we should be vocal about the need for supervised independence going forward. I cannot imagine not having had a marginal degree of autonomy as a trainee. I cannot imagine having to start performing cases independently without having had such an experience before doing it as an attending. It is essential. We should speak up and be advocates. In doing so, we are also being advocates for future patients.