Managing Complications Part 1: Yourself

Richard Davis, Pitman Mbabazi, Gady Barutwanayo, Robert Sinyard, Mardi Steere

Introduction: The Second Victim Syndrome

Complications are an inevitable part of being a surgeon. Surgery is by its nature a complex process, prone to unexpected outcomes no matter how careful you are, or how perfectly executed your treatment plan was. And yet, complications take a human toll. This is true for the patient, of course: they suffer more pain, a longer recovery, and possibly permanent disability or death. But the human toll of a complication also falls on you, the surgeon. You watch another human being and their family suffer because of something you were involved in. It is natural for you to feel guilt, shame and fear. This is the Second Victim Syndrome: psychological and emotional trauma experienced by a medical provider due to an adverse patient event.

One of our goals is to help you walk your patient and their loved ones through a complication. But before you can do that well, you must walk yourself through the process. You must deal with all the "baggage" that comes with a complication. **In the process of recognizing and dealing with a complication, the best possible outcome is for you to remain a healthy human being and to become a better surgeon.**

Every experience, no matter how painful, has a lesson that will help both your future patients and you. It is all too easy to hide from that lesson by ignoring it, blaming others, distracting yourself with work, or covering up your feelings with drugs or alcohol. It takes great courage to face the facts of the complication and learn from it. But if you refuse to do this, you do a disservice to yourself, the patient involved, and to your future patients.

Please do not skip ahead to Part 2, the chapter that tells you how to deal with patients and their families. In order to deal well with these people in these volatile situations, you must first deal with yourself. If you are deceiving yourself about what happened, that self-deception will come out. The family will ask difficult questions. If you have not done a thorough assessment, including your own role in the outcome, they will know that "something is wrong." When families sense that "something is wrong," they will assume, rightly or wrongly, that they are being lied to.

Our treatment of this subject is a 3-part series: Parts 1 and 2 of "Managing Complications" naturally leads to Part 3, "Defending Yourself from a Lawsuit." Patients and families sue when they believe they are not being told the truth or not being treated with dignity. In this sense, the best defense is actually an offense of kindness, humility, and honesty. Self-reflection, therefore, must be the first and most important step in preventing lawsuits and dealing with them when they occur.

A Classification System for Complications

The best way to analyze what happened is to remove all subjectivity. One way to do this is to apply a framework to all adverse events, before deciding on the appropriate next step. At Kijabe Hospital we divide complications into 5 categories:

Category	Description
1	Anticipated death or complication following terminal illness
2	Expected death or complication given clinical situation, despite taking preventive measures
3	Unexpected death or complication, not reasonably preventable
4	Potentially preventable death or complication: Quality or Systems issues identified
5	Unexpected death or complication resulting from medical intervention

Category 1: Anticipated death following a terminal illness

KG is a 45-year-old woman whom you previously operated on for jaundice with an intraoperative diagnosis of biliary tract malignancy and metastatic disease in the liver. Now she has recovered from the operation. She receives appropriate palliative care and dies one month later. The family is distraught, as many of them never accepted her terminal illness and still felt that God would heal her.

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In this scenario, it is important to recognize that even though you did nothing "wrong," you will still feel sad and even grieve. Recognize that you need not feel guilt or self-recrimination here, despite the fact that you operated on someone and they died. If you do feel these things, remind yourself of this fact.

Level 2: Expected death given clinical situation, despite taking preventive measures

DL is a 22-year-old laborer who suffered a pelvic fracture during a fall. On arrival he is hemodynamically unstable with an apparent pelvic fracture. FAST Ultrasound shows no intra-abdominal fluid. He transiently responds to resuscitation with crystalloid fluids and blood. You stabilize his pelvis with a bedsheet, then you perform extraperitoneal pelvic packing while an orthopedic surgeon places a pelvic external fixator. He is admitted to the ICU, where you continue resuscitation with fresh whole blood donated by several members of the hospital staff. Despite your efforts, he dies. The family is inconsolable. One man in particular becomes quite angry, blaming you for not "doing something" and calling your facility "a hospital of death."

Once again, in this scenario you did nothing "wrong" and in fact you gave this young man every chance he could have had under the circumstances. Maybe elsewhere he would have survived with an interventional radiology intervention; in your setting that was not possible. But the adrenaline-fueled operation, and the volatile interaction with the family members, will take a toll on you and on the team (including the blood donors!) You need to separate the feelings of sorrow for what happened, from (false) guilt for what happened. A careful, rational analysis of the events will help you do this.

If there were any missteps in his care, take this opportunity to learn from them. Did you wait too long to take him to the operating room? Was the OR not able to take him right away? Did the laboratory have difficulty processing blood in a timely manner? Learn from these events and address any system issues that arose, while recognizing that the outcome was probably not affected unless the delays were extreme.

The chance for self-recrimination here is high: if everything didn't go perfectly, if your performance wasn't 100% spot-on, you might blame yourself for the outcome. Be realistic. The patient had a non-survivable injury and you did your best. Take what lessons can be learned, be honest with yourself about what those lessons are, and move on.

Category 3: Unexpected death, not reasonably preventable with medical intervention

WW is a primigravid 23-year-old woman with no significant obstetric history who undergoes a cesarean section for failure to progress, yielding a healthy baby girl. On postoperative day two, she is walking in the hallway and suddenly collapses. She cannot be resuscitated and dies. Postmortem reveals a massive "saddle" pulmonary embolus.

In this situation, the death is completely unexpected but on further investigation there was nothing you could have reasonably done to prevent it. Verify that this is true: did she have any signs of a coagulation disorder in her obstetric history, such as multiple pregnancy losses or a previous venous thrombosis during pregnancy? Did she have calf tenderness or unexplained tachycardia before her collapse? If so, there may be a system issue for you to address, such as standardized assessment of patients or training of the staff. If there were warning signs that were ignored, this complication moves into Category 4; otherwise it remains in Category 3.

Category 4: Preventable death. Quality / system issues, opportunities for improvement

MW is a 45-year-old man with long standing obstructive jaundice. Workup revealed very elevated bilirubin and transaminases, disordered coagulation, and a stone impacted in the distal common bile duct. You admit him, resuscitate, administer Vitamin K and offer him cholecystectomy and common bile duct exploration. You discuss the risks of general anesthesia given his liver dysfunction. Once he is as fit as possible for surgery, you operate. During the dissection, you injure his

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portal vein. He has profuse bleeding, losing 1L of blood before you get control. Anesthesia gives 2L of crystalloid and 2 units of blood. He awakens from surgery, but on postoperative day 3 he becomes hypotensive and encephalopathic, with worsening liver enzymes. Ultrasound does not show blood in his abdomen. He worsens and despite your best care he dies.

Scenarios like this one are all too familiar to experienced surgeons: patients who have absolutely no margin for error. And they seem to happen more often in resource-limited settings, where patients present with advanced disease, and non-surgical interventions aren't available. This man's illness left no room for mistakes; to minimize anesthesia risk, the operation needed to be both quick and technically perfect. A high-volume bleed, and its resulting fluid shifts, probably pushed his liver beyond what it could tolerate.

This type of complication is painful to honestly assess. Instead you might rationalize, saying "his liver dysfunction was just too severe. I really did my best." And you may be right- perhaps he wouldn't have survived even a perfect operation. But a more honest assessment reveals that the blood loss likely contributed to his death.

Do not lie to yourself by brushing these feelings aside. You need to deal with them. Remember, the desired outcome here is for you to remain a healthy human being and become a better surgeon.

What can you learn from this event to become a better surgeon? Is your fine dissection technique everything it could be? Could you benefit from some coaching in this regard? (See "Becoming a Better Surgeon.") How about positioning yourself and the patient better so your hands will be steadier? (See Approach to Positioning the Patient and the Surgeon.) Do you need to work on controlling hemorrhage from a large vein? (See "General Principles of Hemostasis and Hemorrhage Control") If you ignore the role your skills or judgment played in the outcome, you will not automatically seek out these lessons. Your skills and judgment will stay the same.

What can you do after this event to remain a healthy human being? First, recognize that contributing to someone's death has an effect on you. Don't try to ignore it, acknowledge it. Talk with your peers, a more senior surgeon whom you respect, or even a counselor. Don't forget to talk to your family as well. We discuss this matter further below.

Category 5: Unexpected death resulting from medical intervention

JN is a 70-year-old man with long standing right lower quadrant abdominal pain. After thorough investigation, you decide to perform a diagnostic laparoscopy. During surgery, you note extensive adhesions around the cecum. You are unable to complete the operation laparoscopically. You loosen the retention sutures at the Hasson port site, remove the port, and convert to open appendectomy. After removal of the appendix, you close the right lower quadrant incision and tie the umbilical port site retention sutures. Postoperatively, the patient develops ileus and abdominal distention that does not resolve. On re-exploration after 7 days, you find that one of the umbilical retention sutures has looped around and strangulated a piece of small bowel. You resect the dead bowel and perform an ileostomy. He worsens, developing abdominal compartment syndrome and intractable hypotension. Finally, despite maximal ICU support, he dies.

Scenarios like these should be very rare. But they will happen if you operate enough. There really is no way to rationalize this: a healthy man with a relatively minor problem died because of a surgical intervention. He died because of a mistake you made.

There are always lessons to be learned here, so learn them. Close the Hasson port site immediately when you convert to an open operation. Be mindful that bowel can be injured during abdominal closure. Don't blame the resident or the scrub tech; as the surgeon you are ultimately responsible for what happened.

But also don't fail to acknowledge what effect this event will have on you. A legitimate

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Category 5 complication must be dealt with properly, starting with yourself.

Managing Yourself After Complications

You will need to talk to the family immediately. Explain what happened as best you can tell. Avoid the kind of statements that a lawyer might make, such as "I cannot comment on that." Be open and honest with them, as you are and will be with yourself. We discuss talking with the family more in "Managing Complications Part 2."

Below we break this topic down into several domains:

Thinking Honestly

Take time later on, when you have a few uninterrupted minutes, to really think about what happened. Now that the "heat of battle" has died down, you will recall details that you might not have noticed. You will remember things that you saw and heard, and they will take on new significance. Other memories and realizations will come through in the next few days and weeks as you think further.

Take notes on your reflections. Include even details that you are sure you'll remember. The safest and most confidential way to do this is to write an email to yourself. As you continue to develop this email thread, it becomes an important record. It is for you only; you do not need to mention to anyone that it exists. But it will be invaluable to you if there is a lawsuit. Often litigation occurs years later, when your recall of specific details has faded.

Participating in Department or Hospital Audit Process

We have used errors of technique to illustrate our Category 4 and 5 complications. However, errors of diagnosis, judgment, or communication can also be at play. In the Chapter "Improving as a Surgeon" we explore this subject further as it relates to you.

Your hospital must have an Audit, Morbidity / Mortality or Quality Improvement process in place. If it does not, start one using a classification system such as ours. It is especially important to identify system issues- improving these can have a dramatic effect on patient safety. The truth is, most adverse events are due to systems issues rather than individual poor judgment. Examples include failure to act on abnormal vital signs and recognize a deteriorating patient, or malfunction of crucial equipment during an emergency. These must be addressed through a root cause analysis and correction of the system factors that caused the complication (see "Quality Improvement.") This process depends on a well-conducted audit.

During the audit, be open and honest about what happened. If you are overly concerned about your reputation, lying and shifting blame will get you a reputation… as someone who lies and shifts blame. If you are in a culture where such behavior is expected, or modeled by the leadership, you have a bigger problem than this one complication. (See "Culture and Culture Change")

Using Healthy Behaviors and Avoiding Maladaptive Ones

A Category 4 or 5 complication takes an emotional toll on you. It is all too easy to hide from this toll. The most obvious and natural way to hide is to become busy at work. You are, after all, an important surgeon and people are depending on you. You will likely take this approach without even meaning to. Be aware that this happens; try to counteract it by deliberately taking time to process what you're going through.

Losing yourself in your work is one way of "hiding" from a complication. Another is simply not talking about it. Out of shame, or concern for your reputation, or fear of losing patient referrals, you just may not want to discuss the complication. This approach is also easy to take without realizing it. But you need someone, a trusted friend or group of friends, who will understand the situation and listen and respond to you. We discuss this further below.

Be careful using drugs or alcohol to deal with the feelings of guilt or shame after a complication. Yes, these will make the feelings go away temporarily. But as we state throughout this chapter, such feelings should be met directly and used to make you a better surgeon and a healthier person. Using substances to numb your feelings will derail this process.

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Discussion with Peers

Whatever the stage of your career, whether resident, junior consultant, or seasoned veteran, there are bound to be others around you who have experienced similar events and can understand. Discussing what happened will help you process it in your own mind. Your peers will inevitably share similar experiences that they possibly hadn't ever discussed with anyone else. Their friendship and support will be vital.

If you are in a culture where your peers are your competition, confiding in them can be dangerous. But such a culture is not a healthy one. Overall, unhealthy cultures are more likely to produce complications and bad outcomes. Do what you can to change the culture- find one trusted friend and be open with them. Encourage, by example, the process of analyzing and owning your mistakes and trying to improve from them, even though others might be trying to hide theirs. You will be surprised at the "ripple effect" of such a small act: the culture may well begin to change. The healthiest cultures are the ones that naturally provide a collegial and supportive environment.

Discussion with a Mentor

We cannot overstate the importance of a mentor. Ideally you will seek one out before adverse events happen. You can then go to this person and discuss the events with them, building on a strong relationship that already exists. If you do not have a mentor, find someone with more experience in your field, whom you respect, and ask them if they would be willing to play this role. If you are a trainee, a mentor is even more important. Choose one in the same specialty if you can, and of the same gender if possible. Most (but not all) senior surgeons are glad to play this role in a surgeon's career, so if the first one you ask is not willing or able, don't be afraid to ask someone else.

Discussion with your Spouse or Significant Other

Your spouse or significant other also needs to know what is happening. Your shame may be deepest here; you may need them to respect you and believe that you are good at your job. But you will carry a Category 4 or 5 complication with you for a while. Those who are close to you will be able to tell that something is wrong. You owe it to them and to yourself to talk about it. Most likely the response you get will be supportive and understanding. In any case it will be better than the response you get when they know you're carrying something on your own and hiding it from them.

Your Faith

If you have a faith tradition, this is the time to lean on it. Prayer and meditation can calm you and help you reflect on what happened in a detached way. Holy scriptures may bring you comfort, or you may read them with a new perspective on suffering given your circumstances.

Mourning, Seeing a Counselor and Taking Time Away

Making a mistake that directly or indirectly causes someone else to die is like a death in your own family. You need time to "mourn" this loss the same way you would mourn the death of someone close to you. Do not underestimate the need to spend protected time away, free from clinical care responsibilities. You may think you cannot leave your practice, but you should: even a few days away will give you time to rest and reflect on what has happened. In some cases, you may even need a few sessions with a professional counselor. This is not a sign of weakness. And there is no need to tell others about these sessions if you don't want to. But a counselor is trained in ordering and processing grief and stress, just as you are trained in your field. There will definitely be some benefit to having a few sessions with them.

The good news is that if you face these feelings of loss, guilt and shame, they do get better in time. If you pretend they aren't there, they will stay below the surface and continue to affect your actions. Trying to do so is as ridiculous as trying to pretend that you aren't affected after a loved one dies. Of course you are affected!

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Having Category 4 or 5 complications is part of being a surgeon. The only way to not spill water is to not carry water. And yet, you must come through the process as a healthy human being, and a better surgeon who has learned from your mistakes. Becoming a great surgeon requires learning from bad outcomes without becoming a monster in the process. In this chapter we have presented a way to recognize your emotions and to use them to learn the lessons that must be learned. Again, we encourage you to follow this process, difficult though it may be. The alternative, hiding from the facts and from your emotions, is not healthy and will not lead to personal or professional growth.

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