

FIRST DRAFT

[Title is Still a Secret]

Robotic Surgeon Series: Book 4

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Author's Story Planning Notes:

- This first draft continues the story from Book 3 (*Savior of the War Torn*). In case readers have forgotten the storyline, we need to briefly reintroduce the characters and the situation.
- Readers with a good memory will notice that this beginning is after the last chapter of Book 3, but before the Epilogue. There was a blank time gap there, and that was a good opportunity to do the intro for this book. Chapter 4 will be a revised version of the Book 3 Epilogue. That will put everyone on track for the new story.
- These two intro chapters do not include Adam. That is a mistake I will fix in a later draft.
- They also use Ares and Skeletex from Book 3. Opening with those might create confusion when we later switch to Adam and Mark V in the civilian world. Later drafts will probably change this.
- Finally, I might think an intro is necessary. But, this might be too boring to keep the reader's attention. So, starting with an exciting bang may override the need for story continuity. These chapters could very well be deleted so I can open with a bang. Then the intro will be woven in later chapters.

That's how stories get written. Make a plan, start writing, expect major changes in the second draft. Readers will never know what got thrown away (except that I'm actually sharing this with the newsletter for the first time).

Chapter 1. Back in the OR

“Greg, do you see any more shrapnel holes in this soldier? I think I’ve extracted all the metal and ceramic fragments. Major bleeding has stopped and the wounds are closed.” Dr. Monica Gray wanted to be certain this patient didn’t have any hidden wounds before she signaled the team at the OR bedside to move him to recovery. She scanned the soldier’s body through the highest magnification in the robotic surgical camera. But she knew a second set of eyes could sometimes find details that the primary surgeon had missed.

“Monica, I’m looking. The wounds you’ve closed look good. They’re not seeping,” Greg Young continued to steer the camera across the body of the young man who had been wheeled into the OR less than an hour ago.

He had been one part of a surveillance team that had been discovered. An enemy drone had fired a fragmentary missile at the team of soldiers hiding in the crawl space under an abandoned home. The wood and concrete had absorbed enough of the blast and the shrapnel that all three men had survived.

“Monica, look up here in his left armpit. I think there’s a small penetration still there.”

Responding to Dr. Young’s discovery, Monica responded. “Thanks, I see it.” Then, speaking to the team at the bedside. “Can you tilt the table to the right? Raise his left arm gently. I need to get in there.” Her support team complied.

With the left armpit exposed, Monica guided the arms of the remote end of the surgical robot into the space and probed directly into the penetrating hole. Monica was sitting at the console of the Mark V robot on a NATO military base in Linköping, Sweden. Her patient was in a combat surgical hospital hundreds of miles away in Finland. The battle between Russian and NATO forces for control of Finland raged on, as it had for nearly two years.

With the surgical camera just inches above the penetrating wound, Monica could use the hyperspectral camera to collect and process wavelengths of light that were invisible to the human eye. The device gave her x-ray vision several millimeters below the surface. With this enhanced vision, she could clearly see where the piece of shrapnel rested. She could even see the faint traces of torn tissue that indicated the path it had taken through the muscle. Since it was a relatively straight trajectory, she followed the same path with her smallest instruments.

“I can’t see the shrapnel directly, but the hyperspectral camera is showing the path and the resting point clearly. I’m guiding the instruments straight to it. Luckily, it missed any important arteries. That’s also why there was little blood showing on the surface.”

A third voice interrupted her conversation with her surgical partner. With a metallic and formal tone, it said, “Dr. Gray, the path you are following is very small. Your human hand movements are not precise enough to stay in the channel. If you will allow it, I can guide the instruments to the shrapnel without further damage to the tissue.” The voice was that of the military surgical AI, named Ares. It was designed and trained on all forms of combat trauma cases.

Monica paused for a moment. She knew how accurate the AI was with this robot. But she had also seen its shortcomings and mistakes under critical conditions. It had earned her respect, but not her trust. But she had to admit that it was correct. The channel was tiny, and it could guide the instruments unerringly to the target. With such a simple maneuver, she reasoned nothing could go wrong.

“Acknowledged, Ares. You take control of the instruments. I will observe.” With those words, Monica released her grip on the instrument controls.

“Thank you, Dr. Gray.” Without pausing, Ares took control and immediately increased the speed and the precision of the movements. Under his control, the last piece of shrapnel was in the instrument’s grasp and sliding out within seconds. He injected a healing solution in the space as the instruments slid out. Then, dropping the foreign body into a waiting debris bag, the instruments immediately turned to closing the wound.

Within a single minute, Ares reported. “Procedure completed.” The instruments came to a stop. Control returned to Monica’s hands if she chose to take further action.

Monica inspected the closure. “Looks good on the outside.” Then she spoke, “rewind and display the final 60 seconds of the procedure.” Her view of the armpit of the soldier was replaced by a video of the last minute of the AI’s procedure. Inspecting everything it had done, Monica said, “Go job, Ares. Thanks.”

“You are welcome, Dr. Gray.”

Monica spoke to the OR team in Finland. “You can take him to recovery. Are there any more patients waiting?”

The head nurse in the field hospital replied immediately, “Negative. He was the last one.”

“Good. Dr. Young and I are standing down for now. But, we’re nearby if there are more casualties.”

“Thank you. Finland, out.” With that, the data connection from the battlefield OR to the surgeon’s command post switched off.

Chapter 2. Back on the Horse

Stepping away from their robotic surgery consoles, the two American surgeons shook out their arms to release the tension of the day’s work. They were far from the front lines where the shooting was intense, but they were still an essential part of the war effort. Russia was doing its best to take control of the entire country of Finland. They were asserting some long forgotten claim to ownership of the territory, which had been “stolen” from them after some past war. They had hoped that Finland’s vacillation about being a member of NATO would prevent the other countries from getting involved. They were wrong. Seeing the obvious implications, all the NATO countries lined up against their common enemy.

Monica Gray, Greg Young, and several more talented telesurgeons were one of America’s most influential contributions to the war. Wounded soldiers did not have to endure a long and harrowing extraction to a major hospital facility. The talent of the world’s best surgeons could be applied to them within a few hours of injury, with only a short exfiltration from the battlefield.

Stepping outside of the heated buildings, Monica and Greg let the brisk Swedish air invigorate them. Hours leaned into a surgical console were physically demanding.

Greg looked at Monica. “How are you holding up? This doesn’t bring flashbacks of your capture?”

Internally, even the mention of her ordeal caused a wave of panic to race through her system. But, externally, she was determined to keep that hidden. “No. It’s actually therapeutic. It keeps my mind busy. Stops me from wallowing in some of those dark memories. It’s also

encouraging to know that our work is hurting the Russian's efforts. It's a form of revenge for what they put me through."

Greg didn't push the topic any more. Since her return, she hadn't been the same person he first met. She was deeper, quieter, more focused. He didn't know what was happening in that deep, quiet soul anymore.

Linköping Sweden was the location of the medical command post where they lived. From here, they had the fastest, most secure data connections to all the combat surgical hospitals in Finland. When needed, they could connect to any one of those in an instant. Physically, they never traveled far from the very spot where they were standing. But, digitally, their surgical skills traveled thousands of miles every day, jumping from one hospital to another. The Mark V surgical robot was the best in the world and they were two of its best physicians—along with the AI that understood more about combat trauma procedures than both of them put together.

"Ares stepped in nicely, didn't he?" Greg offered, referring to the surgical AI that had been created specifically for military missions like this.

Nodding, Monica agreed. "He did. There is no question that he knows how to do everything we can do. But I'm still a little suspicious of how he chooses to use those skills."

Defending the AI, Greg answered, "He doesn't really decide on his own. He was programmed and trained to act a certain way."

"Yes, I know. Like that little algorithm that gave higher priority to soldiers of a higher rank." Monica was referring to a behavior they had stumbled on during the heat of a very intense day. Unbeknownst to the surgeons using the AI, it had been told that higher rank meant higher value. So when faced with a large number of patients, the welfare of the Colonels and Majors came before that of the Corporals and Privates. Once exposed, that minor feature had been removed. All information about it had been stamped highly classified. It was even above their security clearances. But, they had discovered it, so they couldn't forget.

"There are probably more subtle rules in its mechanical brain that we'll never discover. But today, it was a big help."

"I suppose." Monica fell silent. She was returning to her private depths.

Standing outside the medical facility, Monica and Greg could see the city in the distance. The spire of the Linköping Cathedral dominated the skyline, as it had for over five hundred years. It was so old that its foundation and lower levels were thronged with mourners and supplicants when the Black Death ravaged the country in the 1300s. When the disease finally abated, the final construction was delayed for generations because there were too few people still living to carry on all the functions of society.

Between the city proper and the military base, there was a wide buffer of farmland, forests, and canals. Even this late in the twenty-first century, the city and terrain felt like a memory that was centuries old.

"It's beautiful out here." Greg changed the subject. "Look at those peaceful farms and forests. This part of Sweden has a unique beauty all its own."

They both knew that the cities and natural lands of Finland had looked much the same before the bitter war started. But today, those both lay in ruin. The ravages of war had destroyed centuries of construction and cultivation. Monica was glad she could contribute to the war effort

from this distant remove, rather than standing at the edge of the destruction, just out of range of enemy fire.

“It’s a cold, windy beauty most of the time, even in the Spring. Let’s go back inside. I’m hungry.”

Monica had been back at the facility long enough that she no longer needed to follow the colored stripes on the walls that showed the way to the mess hall.

Subconsciously, her mind associated the long green stripe with food. Even the sight of it in the middle of the day would trigger the mental consideration of whether she needed to eat.