



Editorial

Ghost Surgery, Including Neurosurgery and Other Surgical Subspecialties

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INTRODUCTION

“Ghost Surgery” is best defined by when a surgeon substitutes their partners and/or other surgeons (e.g., residents, physicians’ assistants or any other healthcare or other individual) to perform the actual operation. Here we reviewed several medicolegal neurosurgical and other surgical subspecialty cases that illustrated how “Ghost Surgery” is being performed.

Definition of “Ghost Surgery”

“Ghost Surgery” occurs when the original surgeon substitutes someone else to perform the actual operation. Dunn (2015) defined ghost surgery as: “...when a physician assistant, a surgical assistant, an RN first assistant, a resident, or another surgeon assists on or performs an operative or other invasive procedure without the patient’s knowledge, regardless of whether the surgeon who obtained the consent was scrubbed in or not.”^[1]

Gray v. Grunnagle (1966): “Ghost Neurosurgery”^[3]

The patient, Charles B. Gray, saw an orthopedist, and was admitted to the hospital.^[3] Gray consented to have spine surgery performed by Dr. Blakley who then called in Dr. Jerome F. Grunnagle, a neurosurgeon who diagnosed a dorsal thoracic disc vs. tumor, and recommended a T8-T10 exploratory laminectomy. At surgery, the laminectomy had to be extended from T3-T10, and the spinal cord appeared atrophic. He removed the dentate ligaments at these multiple levels to better evaluate the ventral cord, but found neither tumor or significant disc herniation. Postoperatively, the patient was paraplegic, and never recovered. The subsequent suit was based upon; lack of informed consent, negligent surgery, inadequate diagnostic work up, and postoperative abandonment. The court solely allowed the claim of lack of informed consent to stand; this resulted in a plaintiff’s verdict of \$80,000. On appeal, the Appellate Court upheld the original \$80,000 verdict.

Holmes’ Article on Ghost Surgery in 1980^[4]

Substitute Surgeons Implanting Medical Devices

In 1980, Holmes discussed “Ghost Surgery”, and estimated that 50-85% of the operations performed in teaching hospitals by 1980 were done by residents, often without an attending

present.^[4] He also described this as occurring when an unqualified surgeon called in a more qualified surgeon to perform the actual operation, but the former surgeon signed the operative report, and billed the patient. Ultimately, the practice of “Ghost Surgery” was condemned as “unethical” by the American Medical Association and the American College of Surgeons.

Industry Representative Implanting A Medical Device^[4]

Holmes also defined “Ghost Surgery” as occurring when a representative from industry performed the actual implantation of a medical device.^[4] He described the case at Smithtown General Hospital, where the product representative Mr. William MacKay placed a prosthetic device into a patient’s leg. As the device immediately loosened, Mr. Mackay was called back from the golf course to replace the device. Interestingly, Mr. MacKay had no high school diploma, no college education, and no paramedical training. The State of New York considered him as “practicing medicine without a license”.

Perna v Pirozzi (1982): “Ghost Urological Surgery”^[8]

The plaintiff Thomas Perna saw Dr. Michael Pirozzi, a urological surgeon, and was told he needed surgery for kidney stones (right pyelolithotomy); Dr. Pirozzi obtained the patient’s informed consent.^[8] However, both the initial surgery and a second operation were performed by Dr. Pirozzi’s two partners; Dr. Del Gaizo, assisted by Dr. Ciccone. The plaintiff claimed lack of informed consent, negligent performance of the operation, and negligent follow-up after the two operations. The defense maintained that the consent form allowed any three members of the group to perform the surgery, assisted by any of the others. The court determined no negligence was involved, and the suit resulted in a defense verdict.

Grabowski v Quigley (1996): “Ghost Neurosurgery”^[2]

In Grabowski vs. Quigley *et al.* (1996), Grabowski scheduled spinal neurosurgery with Dr. Quigley on April 18, 1989.^[2] Mr. Grabowski was anesthetized at 8:15 A.M., and Dr. Quigley’s office was called repeatedly. At 10:20 A.M., Dr. Maroon, the Chairman of Neurosurgery, asked Dr. Bailes to start the surgery. Dr. Quigley finally arrived at 11:25 A.M., and the surgery was over by 12:30 p.m. Postoperatively, the patient experienced residual pain, and a new foot drop. In April of 1990, the patient required a second operation by Frances T. Ferraro, M.D. for a residual/recurrent disc.

Mr. Grabowski later filed a suit after finding out that Dr. Quigley was not in the operating room for most of the case; the patient had consented for Dr. Quigley alone to perform the surgery. Here, the New Jersey Supreme Court

quoted from the Perna v. Pirozzi case regarding the lack of informed consent.^[2,8] The court explained: “The issue was informed consent; the patient presumed he was signing for Quigley to do the case.”^[2,8] Further, “...by signing he was providing his consent to Quigley only.”^[2] [See Gray v. Grunnagle, 423 Pa. 144, 165, 223 A.2d 663, 674 (1966)].^[8] The court also quoted from the Judicial Council of the American Medical Association, Op. 8.12 (1982); “If the patient is not informed as to the identity of the operating surgeon, the situation is ghost surgery.”^[2] This initially resulted in a defense verdict. However, on appeal, the appellate court, opined: “For the reasons stated above, we conclude that the trial court erred in granting summary judgment on Counts I, III-VI of Appellant’s complaint dismissing Drs. Quigley, Bailes, and Maroon as parties to the action” (e.g., now reinstated these complaints), and only dismissed Count II, concluding there was no negligence [Table 1].^[2]

Kocher 2002: “Ghost Orthopedic Surgery”^[6]

In 2002, Kocher introduced 3 cases in which ghost surgeons performed the surgery: shoulder arthroscopy, knee arthroscopy, and Carpal Tunnel release.^[6]

In the first case, a patient required additional hospitalization following shoulder arthroscopy; the patient sued when he found out that the surgeon’s partner did the surgery. In the second case, a patient developed a complication following an arthroscopic partial meniscectomy performed by a resident rather than by his surgeon. The patient sued when he found out that his surgeon left the room to operate “simultaneously” in another operating room. In the third case, a carpal tunnel release was performed by a resident, who injured the median nerve, under the supervision of the attending orthopedist.

Kweon 2016: “Ghost Plastic Surgery”^[7]

In 2016, Kweon discussed how The Korean Association of Plastic Surgeons (KAPS) reviewed a plastic procedure performed by a “Ghost Surgeon” at an out-patient Plastic Surgical Clinic; the high school student died of cerebral hypoxia.^[7] This prompted the evaluation of multiple other procedures performed at that center, and the discovery of many instances of “Ghost Surgery”.

Hong *et al.* 2018: “Ghost General Surgery”^[5]

Hong *et al.* (2018) observed that “Ghost Surgery” was not new, and added that it; “...happens in university-affiliated hospitals as well as private hospitals.”^[5] They noted that the Korean Medical Service Act required surgeons to obtain informed consent to counter ghost surgery. “They determined; ... even if other medical professionals are present in the operating room, the operating surgeon who received consent must take overall responsibility for the whole process

Table 1: Counts I- VI of Appellant's Complaint.

Count I	Appellant did not consent to the commencement and performance of the surgery by Bailes and did not consent to Quigley performing only a portion of the surgery; “[b] y reason of the foregoing, [Appellant] was operated upon without his consent and was bruised and battered in and about his person.”
Count II	Quigley and/or Bailes performed the surgery in a negligent manner.”
Count III	Quigley was negligent in scheduling the surgery and in not being present to perform the surgery in its entirety.”
Count IV	Quigley breached an oral agreement with Appellant to perform the surgery in its entirety and in a non-negligent manner; Quigley also breached the agreement by directing and/or permitting Bailes to commence the surgery and perform a portion of the surgery in his absence.”
Count V	Appellant, at no time, granted authority or consent to Maroon to direct Bailes to commence and perform the surgery.”
Count VI	Maroon, by assuming control and directing that the surgery be commenced by Bailes in Quigley's absence, became vicariously liable for their acts.”

of the surgery.”^[10] “In other words, “...it (“Ghost Surgery”) is surgery illegally performed by an unauthorized substitute surgeon (i.e., a shadow surgeon) instead of the surgeon with whom the patient has a physician/patient relationship.”^[5]

CONCLUSION

“Ghost Surgery” is seen in neurosurgery and other surgical subspecialties. It occurs when the surgeon of record, who obtained the informed consent, does not perform the operation; rather it is performed by another individual (partner surgeon, another surgeon, resident, other).^[1-8]

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Conflicts of interest

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Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Journal or its management.

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