The Financial Impact of an Athletic Trainer Working as a Physician Extender in Orthopedic Practice

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The provision of care and business of musculoskeletal medicine have evolved significantly over the last two decades. It has become ever more important that those who are leading musculoskeletal medicine practices evolve with the changing healthcare landscape and find new ways to provide higher quality and more cost-effective care. To meet these new challenges, many orthopedic physicians are choosing to hire athletic trainers as a part of their office staff. Athletic trainers provide value to a medical practice through their skills in triage, taking patient histories, performing musculoskeletal evaluations, providing instruction on exercise prescription, rehabilitation, and general patient education. If a practice can become more efficient by narrowing staff to a single ancillary provider that encompasses several skills at a high level, this is where patient throughput and patient satisfaction scores can be improved by the athletic trainer as a physician extender.

KEY WORDS: Athletic trainers; physician extender; patient throughput; patient satisfaction; cost-effective care.

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Editor's Note: Even though this is an article about an orthopedic practice, practices of all specialities can benefit from this analysis.

ATHLETIC TRAINERS AS PHYSICIAN EXTENDERS

Athletic trainers (ATs) are routinely employed in hospitals and clinics including orthopedic, family, pediatric, physiatry, and sports medicine settings. ATs are highly educated healthcare specialists with an understanding of musculoskeletal injuries and have a unique ability to treat and manage the care of athletes and the active population. Clinically they assist physicians in effective patient flow through the appointment, evaluation, and treatment process. Utilizing an AT's unique skill set, physicians are able to increase patient throughput, by providing quality services to more patients in the same period of time, thus increasing clinic revenue. Studies have shown increases in patient throughput of between 15% and 30% when ATs are used in the physician extender capacity (Table 1).[1-6]

ATs' skills cross multiple extender roles (Table 2) within the physician practice. They are becoming more popular working as physician extenders and as part of a physician's office staff.

PROFESSIONAL COMPETITION

ATs must possess strong clinical examination skills in order to accurately diagnose and effectively treat their patients, as defined in the educational competency of Clinical Examination and Diagnosis (CE). The development of these skills requires a thorough understanding of anatomy, physiology, and biomechanics. ATs must also apply clinical reasoning skills throughout the physical examination process in order to assimilate data, select the appropriate assessment tests, and formulate a differential diagnosis.[7] Thus ATs' knowledge and skills in musculoskeletal medicine make them a unique professional to assist in an orthopedic-based clinic.

Midlevel providers (physician assistants [PAs] and nurse practitioners [NPs]) have a broad-based education throughout healthcare, but have limited training in musculoskeletal medicine.[8,9] They can work in an autonomous

Table 1. Percentage Increase in Patient Throughput When Using ATs in the Physician Extender Role

Patient Throughput Studies	
Study	**Increase in PT**
Emory School of Medicine[1]	23
St. Luke's Health System, Boise, Idaho[2]	20–23
University of Wisconsin Health[3]	15–30
Orthopedic and Fracture Specialists (Portland, Oregon)[4]	18
Children's Hospital of Wisconsin[5]	25
Heartland Orthopedic Specialists (Minnesota)[6]	15–20

ATs, athletic trainers; PT, patient throughput.

role and prescribe medications, but salaries will be warranted with their ability to be a billable provider. ATs' educational competencies are focused on musculoskeletal evaluation and diagnosis, which makes them ideal for an orthopedic practice. AT salaries are more financially prudent, and ATs work in a nonautonomous role under the direction of a supervising physician.

As the interest in using ATs as physician extenders has grown, the profession of athletic training has realized the need for more advanced post-professional training experience for ATs. To this end, CAATE (Commission on Accreditation of Athletic Training Education) has now created formal residency standards that allow accreditation of focused 12-month training programs.

FINANCIAL IMPACT

Increasing patient throughput has a positive impact on practice income. The direct revenue from additional patient E/M visits as well as surgical case volume resulting from the larger patient volume can significantly increase revenue. For the purposes of this study, Medicare rates were used to evaluate the financial impact of an AT. Medicare rates are useful because they are transparent and easily benchmarked against commercial payer contracts. Many physician practices benchmark their private payer fees as a percentage of Medicare. For physicians who are fortunate enough to have contracts not linked to a multiple of Medicare, it allows us to build a business plan under the worst-case scenario (that physician reimbursement is only 100% of current Medicare rates).

In order to evaluate the impact of office throughput, the 2012 Medicare Fee for the Northeast region was used for level-3 initial and follow-up visits. This study assumed a 1:4 ratio of new to follow-up visits. The 2012 Medicare fee for CPT code 99213 was $78.54, while the fee for CPT code 99203 was $137.73. Based on the visit ratio, the expected reimbursement for each additional E/M service is $88.21 per patient in Medicare dollars. In order to factor the annual impact of office volume increase, it is assumed that the orthopedic surgeon will see patients in the office three days per week, while spending the other two in the operating room. In addition, four weeks of vacation was factored into the equation. One additional patient per day for a provider with three patient days a week equals an increase in annual collection of approximately $12,702.24 (Figure 1; Table 3).

Just as office visit volume increases will have a positive effect on the bottom line, so will an increase in surgical volume. To measure the impact that surgical volume has on the income of the practice, 2012 Medicare rates from the Northeast region were assessed. An aggregate surgical rate was used by averaging the fees for the following procedures: anterior cruciate ligament reconstruction with autograft, arthroscopic medial meniscectomy of the knee, superior labrum anterior and posterior (SLAP) lesion repair, and ulnar collateral ligament reconstruction. The average Medicare fee for these procedures in 2012 was $1,387.24. An increase in one surgical case per week would result in additional collections of $66,587.40 per year. If the practice was able to increase the surgical volume by two

Table 2. Different Roles of ATs When Working in the Physician Extender Position

Patient triage	Initial patient assessment, evaluation, and testing	Ordering diagnostic testing
Presentation of findings to the physician	Scheduling additional tests or procedures	Scribing or electronic dictation
Utilization and proficiency of EMRs	Patient education including pre- and postoperative instructions	Postoperative wound and dressing care
Brace fitting, casting, splinting	Home exercise program instruction	Gait and crutch use training
Rehabilitation of musculoskeletal injuries in an incident-to capacity	Assisting in the operating room (additional credentialing needed)	Community event medical care
Marketing representative for practice	Local high school, college/university, and club sport partnerships	Clinic management and administration

ATs, athletic trainers; EMRs, electronic medical records.

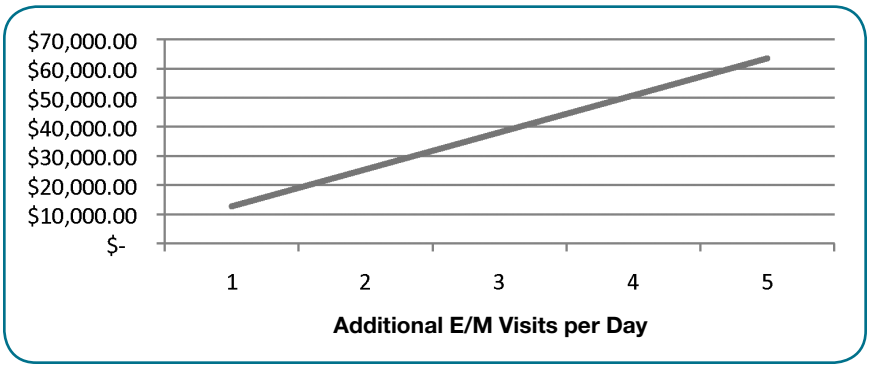

Figure 1. Revenue increase from additional E/M visits.

Table 3. Increase of Revenue Over a Year Based on the Amount of Additional Visits per Day*

Collections for Each Additional E/M per Day		
Additional E/M	E/M Rate ($)	Total ($)
1	88.21	12,702.24
2	88.21	25,404.48
3	88.21	38,106.72
4	88.21	50,808.96
5	88.21	63,511.20

*Using an average rate of $88.21 for each E/M visit.

cases per week, then the incremental income increases to over $133,000 (Figure 2).

In order to apply this to the orthopedic practice model, a couple of key practice factors must be considered. The impact formula takes into account a number of factors that are practice-specific but are standardized for the purposes of this study. A patient throughput increase of 22% was used because it was in the middle of the range found in the St. Luke's study.[2] Based on an increased patient throughput rate of 22% in the office, it is expected that based on six, four-hour sessions, a sports orthopedic surgeon will generate between 506.88 and 1013.76 additional E/M visits per year.

The surgical conversion rate (i.e., the ratio at which surgical cases are performed per E/M service) is the next factor that must be considered. The purpose is to define the number of patients that must been seen in the office for a surgical procedure to be generated. Based on the 2012 Medical Group Management Association Academic Practice Compensation and Production Survey for Faculty and Management, sports orthopedic surgeons perform 587 surgical procedures and 3515 E/M visits on average annually.[10] This results in a surgical conversion rate of 16.70% (Table 4).

When the net increase is totaled, considerable income is then generated from the use of ATs as physician extenders. Based on a benchmark of two patients per hour over the course of six, four-hour sessions, a sports orthopedic surgeon could expect to generate an additional $122,996.83 in collections based on Medicare dollars (Table 5; Figure 3).

DISCUSSION

Though Medicare rates may be a conservative estimate, they allow for consideration of the impact of the AT on the

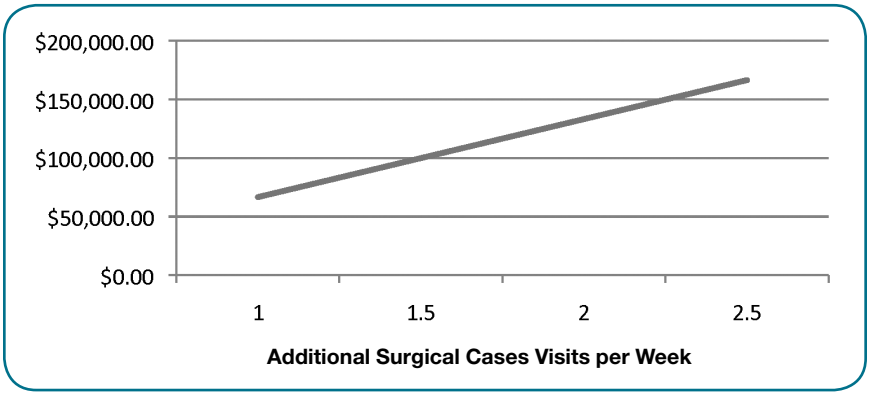

Figure 2. Revenue increase from additional surgical cases.

Table 4. Total Volume Increase from Surgery and E/M

Number of Patient E/Ms per 4-Hour Session	Increased Annual Throughput	Increased Annual Surgical Volume
8	506.88	56.4
12	760.32	84.6
16	1013.76	112.9

Table 5. Total Net Increase from Surgery and E/M*

Number of Patient E/Ms per 4-Hour Session	Net Increase from E/M ($)	Net Increase from Surgery ($)	Total Net Increase ($)
8	44,711.88	78,284.95	122,996.83
12	67,067.83	117,427.42	184,495.25
16	89,423.77	156,569.90	245,993.67

*Based on Medicare dollars.

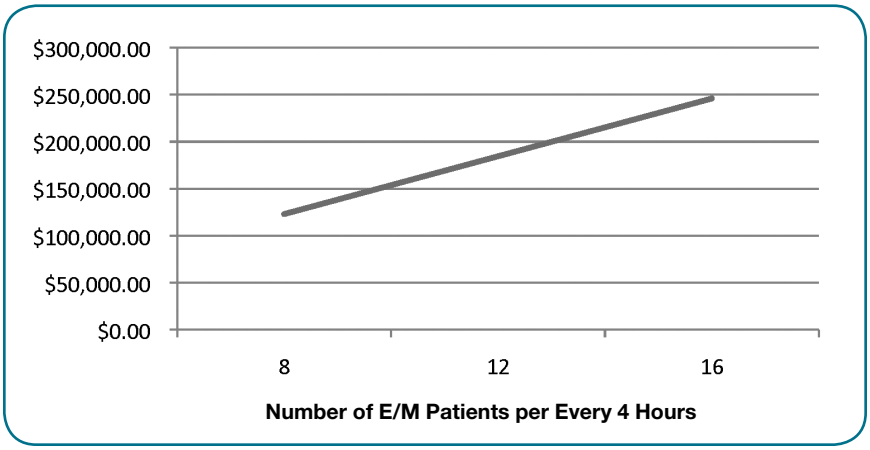

Figure 3. Total net revenue when taking into account the additional E/M visits as well as the additional surgical cases enabled by having an athletic trainer working as a physician extender.

practice. The ability to increase benchmark patient throughput by 22% will have an enormous impact on practice income regardless of payer mix. When the practice initial benchmark is two patients per hour over six, four-hour sessions, this has the potential to impact the sports orthopedic practice by generating nearly $123,000. As with any surgical practice, time in the office is not a significant source of revenue and often is a losing endeavor as the high cost of running a medical practice can exceed the collections generated from two or three office days. Therefore, days in the office generating elective surgical cases must be as efficient as possible.

When used properly, the AT will have a substantial impact on the orthopedic surgeon's practice. Using an AT in a true "extender" role should allow PAs and NPs to function more autonomously in revenue-generating capacities. It is essential that midlevel providers function as autonomously and independently as possible to minimize the occurrence of two billable providers seeing the same patient. Having two providers who can bill for services seeing the same patient load reduces the potential financial impact of the midlevel provider and decreases the overall practice's patient volume potential.

ATs can see patients concurrently with physicians, facilitate patient throughput, and provide care during the postsurgical global period without taking up the time of another midlevel provider, which allows for traditional midlevel provider roles to shift.[11] PA efforts can be better spent screening new patients, conducting follow-up appointments, conservatively managing nonsurgical patients, and performing a variety of revenue-generating tasks.

ATs, in their traditional roles, are also educators and rely on their communication skills to teach their athletes/patients about their injury pathologies. This translates exceptionally well to patient satisfaction within the orthopedic clinical setting. Recent studies have been conducted regarding patient perceptions of and satisfaction with ATs. A study conducted at Emory Sports Medicine compared ATs to orthopedic medical residents in both musculoskeletal background and visit satisfaction.[12] Both professionals received high scores across the survey, with orthopedic residents trending higher in perceived knowledge and education, and ATs scoring higher in patient satisfaction. Colorado Children's Hospital conducted a study using medical assistants and ATs comparing patient satisfaction and the likelihood for patients to refer family and friends to the practice. Although patients spent more time in the clinic when interacting with an AT, they reported a significant

increase in satisfaction and willingness to refer friends and family to the practice.[13]

Physicians have also experienced the benefits of hiring ATs in their clinic from a satisfaction standpoint. St. Luke's Sports Medicine sent a survey to 35 physicians who hired a residency-trained AT (RTAT) to evaluate the ATs' skills and physician satisfaction. Twenty-five of the physicians surveyed have both RTATs and nonresidency trained ATs in the physician extender role. Average scores were recorded for each of eight questions.[14] Based on the responses to the study, physicians who hired RTATs believed the RTATs were very qualified to be integrated into their clinic model and highly qualified in their clinical and musculoskeletal skills compared with other physician extenders. Physicians also believed that patient satisfaction improved, as well as their own practice and quality of life. Overall, physicians who hired an RTAT were exceptionally satisfied with their hiring.

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