# Athletic Trainers in the Physician Practice Setting
# A Business Case

*Pecha FQ, Kitano J, Nicolello TS, Greene JJ, Hajart AF*

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# Section 1: Introduction

The following document is a business case for certified athletic trainers (AT) in a physician office or hospital clinic setting. It is not intended to serve as a complete business plan for any specific organization. This business case serves as core information to develop a customized business plan and strategy for the creation of such a position.

In order to use this document as a business plan or proposal, you will need to gather information, such as type and needs of the practice, geographic location, patient demographics, individual athletic training state practice act, financial projections and/or assumptions and justifications.

This document can be used to supplement your plan, but does not have all the necessary components to serve as a complete business plan. There are many resources available locally and online to help guide you in the process of developing a thorough and complete business plan. Research your local city or county organizations and search the internet for reputable websites such as www.sba.gov for detailed information on how to develop a business plan.

Be aware this business case is designed to provide information on the skills, roles and responsibilities ATs are qualified to perform in the orthopedic clinical setting. Athletic training state regulations and practice acts may prevent ATs from performing one or a number of skills listed within this document. It is the institution and ATs responsibility to fully understand the state practice act for ATs when determining roles and responsibilities within Atheltic Training in an Orthopaedic Clinic job descriptions.

When developing this practice model, as in many professions, hiring the “right” AT as a first hire is essential. Post professional residency education programs (section 3) exist to teach ATs to be an effective part of the staffing model starting day one. There is limited training specific to this setting in athletic training educational programs. Although, AT entry level grads have significant musculoskeletal education, they will not have the specific training as a graduate from a residency program or may not be as seasoned as an experienced AT working in the field.

# Section 2: Executive Summary

Today, many physicians are choosing to hire ATs as a part of their clinical office staff. In a 2016 survey, over 530 ATs reported working in the physician practice setting more than 50% of their time. ATs provide value to a physician's practice through skills in triage, taking patient histories (this role and definition may vary based on institution regulations) [1], performing musculoskeletal evaluations, providing instruction on exercise prescription, rehabilitation and general patient education. The specialized setting of the ATworking in an physician practice setting dates back to the 1970's. As the years passed, this specialty began to grow further and numerous ATs found their way into physician's offices. This eventually led to the first two education programs being pioneered in 1994 (New Hampshire Musculoskeletal Institute) and 1996 (The Steadman- Hawkins Clinic) which were termed "Athletic Training Fellowships." The idea of one year post graduate training in the physician's office grew further 10 years later with "fellowship" programs gaining increased popularity. The National Athletic Trainers' Association (NATA) formally recognized these educational programs in 2010, developing accreditation standards for *Post Professional Athletic Training Residencies*. In 2012, The Commission on Accreditation of Athletic Training Education (CAATE) took over the accreditation responbilities for formalized Post-professional athletic training education programs. Following the medical model, these programs defined a clinical area of focus or specialization in athletic training education rather than focusing on a specific career path. By holding all programs to accreditation standards, much like fellowship and specialty training programs for physicians, This has brought increased credibility to those ATs graduating from a CAATE accredited athletic training residency. Although the residency programs continue to grow in poularity, for both ATS and physicians, a majority of ATs currently emplyed in this setting "made their way" without formal training, much like our early pioneers.

With a history of serving as an extension of the physician both on and off the field, many ATs are gaining interest in the physician office settings. As formalized training continues to grow for ATs working in the physician practice setting, so does demand from physicians, hospitals and clinics to hire ATs. The resources an AT working in the physician practice setting can bring to a clinic can be substantial. Often, there are inefficiencies and excess ancillary staff involved with the everyday operations of seeing patients in a physician's office. If a physician's practice can narrow staff to an ancillary provider encompassing several skills at a high level (i.e. the AT working in the physician practice setting), patient throughput and patient satisfaction scores can be improved. Studies from various practices across the country have shown the addition of an AT working in this capacity has shown to increase patient throughput by 18 – 25%. This is detailed in Section 4. Physician practices may choose to bill for athletic training services, direct or indirect, or they may choose to measure success by patient throughput and patient satisfaction. Starting salaries for ATs working in this capacity range from mid $40k to $60k depending on experience and training[2].

An AT working within the physician's office is a trend continuing to grow. Due to the enormous skill set the AT can offer to a physician practice the future bodes well for those ATs seeking training in the physician practice setting.

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[1] http://www.palmettogba.com/palmetto/providers.nsf/DocsCat/Providers~Jurisdiction%2011%20Part%20B~Browse%20by%20Topic~Frequently%20Asked%20Questions~EM~8EELQE6434?open&navmenu=%7C%7C

[2] LinkedIn Salary Survey for Athletic Trainers working as Physician Extenders.

# Section 3: Service Description of Athletic Trainers working in the physician Practice

## Basic Information on Athletic Training

Athletic Training encompasses the prevention, diagnosis and intervention of emergency, acute and chronic medical conditions involving impairment, functional limitations and disabilities[3]. Athletic Training is practiced by certified athletic trainers; healthcare professionals who collaborate with physicians to meet the patient's goals in activity and participation. To become certified athletic trainers, students must graduate with a bachelor's or master's degree from an accredited professional athletic training education program recognized by the Commission on Accreditation of Athletic Training Education (CAATE) and passes a standardized national examination administered by the Board of Certification (BOC). More than 70% of ATs hold advanced degrees, 65% of respondents to a recent survey regarding physician practice athletic trainers have obtained at least a Master's degree.

The ATC credential and BOC requirements are currently recognized by 49 states for eligibility and/or regulation of the practice of ATs. The credibility of the BOC program and the ATC credential are supported by three pillars: (1) The BOC certification exam; (2) The BOC standards of professional practice, and disciplinary guidelines and protocols; and (3) continuing competence (education) requirements[4].

Athletic Training is an academic major or graduate equivalent major program accredited by the Commission on Accreditation of Athletic Training Education (CAATE) [5]. Students complete an extensive clinical learning requirement in the clinical integration proficiencies (professional, practice-oriented outcomes) as identified in the *Athletic Training Education Competencies*[6]. Entry level Athletic Training education uses a competency-based approach in both the classroom and clinical settings. Using a medical based education model, educational content is based on cognitive (knowledge), psychomotor (skills), affective competencies (professional behaviors) and clinical proficiencies (professional, practice-oriented outcomes). Students must receive formal instruction in the following specific subject matter areas identified in the Athletic Training Education Competencies[6]:

Evidence-based Practice
Clinical Examination and Diagnosis
Acute Care of Injury and Illness
Therapeutic Interventions
Psychosocial Strategies and Referral
Healthcare Administration

[3] http://www.nata.org/education/educational-programs

[4] Board of Certification – www.bocatc.org

[5] Commission on the Accreditation of Athletic Training – www.caate.net

[6] http://www.nata.org/education/competencies

Athletic Training employment settings include high schools, colleges, universities, professional sports teams, hospitals, rehabilitation clinics, physician offices, corporate and industrial institutions, the military, public safety and the performing arts. Regardless of their employment setting, ATs practice Athletic Training according to their education and their state practice act[7].

## Athletic Trainers working in the Physician Practice

ATs are routinely employed in hospitals and clinics including orthopedic, family, pediatric, physiatrists and sports medicine settings. ATs working in these settings improve physician productivity, patient outcomes and satisfaction. 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 throughout the evaluation and treatment process of an office visit. By 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, thereby increasing clinic revenue. The skill set of ATs crosses multiple roles within the physician practice, making the AT an efficient and highly productive member of the physician's office staff.

**Job responsibilities typically include but are not limited to:**

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 of patient's conditions
Utilization and proficiency of EMR (electronic medical records)
Patient education including pre- and post-operative instructions
Post-operative wound and dressing care
Brace fitting, casting, splinting
Home exercise program instruction
Gait and crutch use training
Rehabilitation of musculoskeletal injuries
Assist in the operating room
Community event medical care
Marketing representative for practice
Local high school, college/university and club sport partnerships
Clinic management and administration

There are a wide variety of skills and job responsibilities for ATs in this role. How ATs fit into the employer's clinic can include some, many, or all of the previously listed responsibilities. As practices and their needs differ, the employer and AT should determine the best fit for individual practices.

[7] http://www.nata.org/athletic-training

# Post Professional Athletic Training Residency Programs

Starting in 2012, The CAATE instituted Post Professional Athletic Training Residency Standards and Guidelines for program accreditation. Post Professional Athletic Training Residency Programs (PP-ATR) are formal educational programs that offer structured curricula, including didactic and clinical components, to educate ATs. These programs are designed to build and expand upon the ATs knowledge and experience acquired during professional (entry level) education. The standards allow each post professional Athletic Training residency program to be creative and innovative with its program design and the methodologies used to enable Athletic Training resident's to achieve program goals and acquire defined competencies[8].

Athletic Training Residency Programs were established to allow ATs to gain further experience and expand specialized knowledge while working within the domains of Athletic Training education. Residency programs focused on the specialty training of "Orthopedic Evaluation and Management" complement ATs role in the physician practice setting. PP-ATR programs must incorporate six core competencies including: 1) patient-centered care, 2) interdisciplinary collaboration, 3) evidence-based practice, 4) quality improvement, 5) use of healthcare information and 6) professionalism.

Athletic Training Residency Programs have a variety of experiences specific to the institution where they are located. Each program has the autonomy to develop their experiences and curriculum as long as they meet CAATE educational standards. It is recommended to research these programs when looking to find an AT Resident best meeting specific practice and physician needs.

Athletic Training residency programs may incorporate any number of the following experiences for their residents:

Sports Medicine Clinic
General Orthopedic Clinic
Primary Care Clinic
Emergency Medicine
Musculoskeletal Radiology
Diagnostic and Procedural Ultrasound
Administration
Research
Rehabilitation
Surgical Assistance
DME Business and Orthotics
Rehabilitation

ATs graduating from the Post Professional Athletic Training Residency Programs are trained and prepared to be specialists in Orthopedic Evaluation and Management, making them an ideal member of the healthcare team within the physician practice setting.

[8] http://www.nata.org/sites/default/files/post-professional-athletic-training-residency-accreditation-standards-guidelines_0.pdf

# Section 4: Market Assessment of Athletic Trainers working as Physician Extenders

## Market Overview (December 2010)

NATA Membership: 46,001[9]

Certified Members: 35,798[10]

As indicated through the Bureau of Labor Statistics Occupational Outlook Handbook, employment of ATs is projected to grow ~21% between 2014 – 2024 and produce 5,400 additioanl jobs much faster than the national average for all occupations (14%). ATs working in the offices of physicians consist of approximately 5% of Athletic Training jobs and is one of the higher area for growth in the profession[9]. However, the true number of ATs working in this role is unknown.

**The NATA does not use Physician Practice in their official job setting listing. Clinic could include administration, hospital-based clinic, outpatient/ambulatory/rehabilitation clinic, physician-owned clinic, or secondary school/clinic.**

| NATA Certified Membership by Job Setting As of January 2016 | Number | Percentage |
|---|---|---|
| Clinic | 5,826 | 16.27% |
| College/University | 8,549 | 23.88% |
| Secondary School | 8,533 | 23.84% |
| Student | 2,561 | 7.15% |
| Other | 1,953 | 5.46% |
| No Job Setting Noted | 843 | 2.35% |
| Unemployed | 1,405 | 3.92% |
| Professional Sports | 1,075 | 3% |
| Retired | 1,041 | 2.91% |
| Hospital | 1,675 | 4.68% |
| Independent Contractor | 523 | 1.46% |
| Industrial/Occupational/Corporate | 480 | 1.34% |
| Health/Fitness/Sport Performance | 565 | 1.58% |
| Military/Law Enforcement/Gov't | 303 | .85% |
| Business/Sales/Marketing | 304 | .85% |
| Amateur/Recreational/Youth Sports | 162 | .45% |
| **Total** | **35,798** | **99.99%** |

*Data includes only ATs who are NATA members

[9] http://www.bls.gov/oco/ocos294.htm

[10] http://www.bls.gov/ooh/healthcare/athletic-trainers.htm

The market for ATs working in a physician practice continues to grow in an ever expanding variety of physician practices and hospital-based healthcare systems. Positions can vary in duties and responsibilities. ATs can work full-time assisting physicians in the clinic, and/or in the operating room, or work part-time clinically, while also assisting with outreach care for community events, high schools, college or university athletics or professional sports team coverage. Additionally, ATs are also found throughout management and administrative roles within healthcare systems.

Currently, 49 states have regulation for the practice of Athletic Training, excluding California[10]. Each state's practice act will vary. It is important to understand the practice act for your state and understand the roles and limitations to ensure the AT works within their scope of practice.

**Examples of Clinics where Athletic Trainers can work:**

ATs are found throughout orthopedics, family practice clinics, and in emergency medicine departments. Clinical responsibilities include thorough histories and physical exams, prepping for injections, ordering diagnostic studies, and in some orthopedic surgeon clinics; assisting in the operating room. ATs can be found in any of the listed clinics:

Sports Medicine Surgeons
Primary Care Sports Medicine Physicians
Orthopedic Clinics
Hand Physician Specialists
Foot and Ankle Physician Specialist
Total Joint Physician Specialist
Spine Physician Specialist
Physical Medicine and Rehabilitation Physicians
Family Practice Clinics
Primary Care Clinics
Urgent Care Clinics
Emergency Medicine Departments

[11] http://www.nata.org

# Market Indicators

## Market Drivers:

There are many new challenges in healthcare forcing physicians and hospitals to look for new ways to deliver services to patients. Healthcare reform and other government regulations, an aging population, increasing competition, cost containment and skyrocketing healthcare costs with declining reimbursement rates are some of the growing concerns among providers.

As the demand for healthcare increases and the federal government and other third-party payers emphasize preventative care and programming for consumers, the AT becomes a valuable asset to physician practices and hospitals. Athletic Training is one of the only professions whose educational background focuses significantly on prevention of injury and illness. AT's expertise in prevention, align them ideally within healthcare's future mission. Healthier populations will inevitably help to reduce healthcare costs and can be a significant factor as our population ages[11],[12].

Currently 49 of 50 states have athletic training regulation in place. Because regulation is individual and specific to each state, there is variation among state practice acts. Examples of positive acts are "ATs can perform skills for which they are trained in by their directing physician." Practice acts should be thoroughly reviewed to have a better understanding of how ATs can be most effectively utilized in this setting.

With recent success of ATs working in a physician practice, physicians, administrators and the NATA have recognized value in this career setting. Similar to advanced knowledge of other professions, the CAATE recognized the need for advanced training for ATs to be successful in a number of roles and have developed post professional residency programs (section 2). Residency programs teaching advanced knowledge in orthopedic evaluation and management specializing in Physician Practice setting have been at the forefront of NATA. This is evident by the recent growth of residency programs.

With the implemtation of healthcare reform more people will have access to insurance. The triple aim of the Affordable Care Act is to provide favorable outcomes with high patient satisfaction at a lower cost. The use of ATs in this setting have been shown to increase patient throughput as well as provide high patient satisfaction. (Detailed in section 5) ATs can play an improtant role as healthcare professionals in the parameters of the Affordable Care Act

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[11] Parkinson M. MD, MPH. Consumer-Driven Health Care Done Right: Prevention, Evidence-Based Care, and Supportive Patient-Physician Relationships. *American Medical Association of Ethics: Virtual Mentor. March 2006*; *8(3): 170-173.*

[12] Brewer B. A family doctor adapts to health savings accounts. *The Wall Street Journal.* January 24, 2006

## Market Restraints

There are challenges currently prohibiting widespread integration of ATs into the physician office or hospital clinic setting. While the profession has existed for over 100 years[13], there is still an overall lack of awareness of the profession among many healthcare administrators. ATs established themselves early-on within the sporting arena, working to care for athletes in professional, collegiate and high school sports. The introduction of ATs working in physician practices occurred only 40 years ago[14]. Other providers of clinical care, such as nurses, medical assistants, and other mid-level providers are far more established and accepted in this setting, therefore changing thoughts and culture within these organizations can pose challenging. However, the musculoskeletal skill set of ATs is far more advanced and valuable to both patient care and the practice bottom line.

Reimbursement for AT services by government and third-party payers is still evolving. Currently, Medicare does not reimburse for AT services, which is a major hurdle facing the profession. During provisional recognition, 2000 – 05, Centers for Medicare and Medicaid Services (CMS) created and recognized current procedural terminology (CPT) and revenue codes for Athletic Training. The NATA continues to work with CMS to regain and secure professional recognition. However, ATs are seeing third party reimbursements through various private payers across the country.

As stated above, Athletic Training regulation is in place in all but 1 state Some have limitations on where or with whom an AT can work, but most support ATs working under the supervision of a directing physician. Practice acts should be thoroughly reviewed to have a better understanding of how ATs can be most effectively utilized in this setting.

Integrating ATs into the practice may pose challenging due to existing clinic culture and concerns of other providers within the organization. To successfully integrate ATs into a clinic model, existing staff needs to be educated on the skills an AT can bring to the clinic. If ATs are recognized as such, they will not be viewed as a replacement but rather an extension to the team providing exceptional patient care. Studies have shown the addition of an AT to the existing clinic model to be successful without loss of other professional roles, while improving patient satisfaction, throughput and financial gains to the clinic[15],[16]. (Section 4)

Mentioned as a market driver, physicians are becoming more aware of ATs working in the physician practice, although this career path for ATs is still in it's infancy. Physician support is limited to those who have experience with hiring ATs for their clinic. This topic is becoming more popular at both physician conferences and orthopedic administrators conferences throughout the country. Recent presentations on "Athletic Trainers Working as Physician Extenders" have been presented at; AOSSM, AMSSM, AAOE, AANA. As awareness grows within the orthopedic community, job opportunities for ATs in this role will also grow.

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[13] Far Beyond the Shoe Box: Fifty Years of the National Athletic Trainers' Association. Richard Ebel, Forbes Publishing 1999

[14] Pecha F, Greene J, Khaja S. The Evolution of Athletic Trainers working as Physician Extenders: Presented NATA preconference workshop 2009

[15] Pecha F. The Growing Role of Athletic Trainers in Orthopaedics *Orthopreneur; Empowering Today's Orthopaedic Surgeon Online Publication January 2013*

[16] Mitchell D. Adding Athletic Trainers to Care Team can Increase Doc's Productivity "Physician Extenders" Fill Variety of Functions *American Association of Family Physicians April 2009*
http://www.aafp.org/online/en/home/publications/news/news-now/clinical-care-research/2

### 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[17]. Thus, the AT's knowledge and skills in musculoskeletal medicine makes them a unique professional to assist in an orthopedic-based clinic.

Medical Assistants (MAs): A MA is a multi-skilled member of the healthcare team who performs routine administrative and non-technical clinical procedures in hospitals or clinics under the supervision of licensed health care providers, such as medical doctors[18]. ATs are health care professionals who collaborate with physicians to optimize the activity and participation of patients within the healthcare system. Athletic Training encompasses the prevention, diagnosis and intervention of emergency, acute, and chronic medical conditions involving impairment, functional limitations and disabilities[19]. Athletic Training salaries are higher than MAs, however, their advanced skills in musculoskeletal medicine are essential for complete patient care and provide greater financial impact to the practice.

Mid Level Providers: Physician Assistants (PAs) and Nurse Practioners (NPs) have a broad-based education throughout healthcare but have limited training in musculoskeletal medicine[20],[21]. They can work in an autonomous role and prescribe medications, but salaries will be warranted with their ability to be a billable provider. AT's educational competencies are focused on musculoskeletal evaluation and diagnosis which makes them an ideal healthcare provider for an orthopedic practice's team. Athletic Training salaries are more financially prudent and work in a non autonomous role under the direction of a supervising physician.

## Customer Needs

Physician offices are continually striving to increase revenue, control expenses, increase patient throughput and increase patient satisfaction. ATs in a Physician Practice can accomplish these goals and are a valuable asset to the physician practice which also addresses the needs of the Acountable Care Act and heathcare reform.

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[17] http://www.nata.org/education/competencies

[18] http://www.aama-ntl.org/resources/library/HistoryCondensed.pdf

[19] www.**ama**-assn.org/**ama**1/pub/upload/mm/40/ah03-**athletic**-**trainer**.pdf

[20] Queally JM, et al; Assessment of a new undergraduate module in musculoskeletal medicine. *J Bone Joint Surg Am.* 2011;93:e.

[21] Grunfeld R, et al; An assessment of musculoskeletal knowledge in graduating medical and physician assistant students and implications for musculoskeletal care providers. *J Bone Joint Surg Am.* 2012;94:343

# Section 5: Value Assessment of Athletic Trainers woking in the Physician Practice Setting

## Increasing Patient Throughput

ATs are becoming more popular as healthcare professionals working in the physician practice setting. ATs are highly educated health care professionals who specialize in the prevention, assessment and rehabilitation of musculoskeletal injuries and illnesses[22].

"*Athletic Trainers can help our efficiency, help to keep us organized, and help provide good – effective – safe patient care.*"[23] (Spero Karas MD)

### Studies conducted showing increases in patient volumes with the use of Athletic Trainers in physician clinics:

- Emory Sports Medicine Center, Atlanta GA: A twelve-month study compared the use of MAs and ATs as their primary clinical assistant for two primary care sports medicine (PCSM) physicians. The physician used each clinician for six months and were allowed to adapt their schedule according to clinical efficiency. It was shown ATs had a positive effect on patient throughput and revenue. **Results showed ATs can increase a physician's productivity up to 23% and increase revenue by up to 42%[24].**
- St Luke's Sports Medicine, Boise ID: Implemented the use of a clinical AT into their existing clinic model for two primary care sports medicine (PCSM) physicians. Each physician clinical model included the physician assisted by a MA. Total patient encounters were evaluated comparing one fiscal year without an AT to the fiscal year including the AT. **Both physicians saw significant increases in patient throughput 20-23% and increased RVU production by 4.5 (6.5 hrs) – 6.5 (8 hrs) RVU's per day with including an AT into their clinic model[25].**
- Orthopedic & Fracture Clinic, Portland OR: Included the addition of an AT to their existing staff model for one established surgeon. Data from one year with the AT was compared to 3 previous years of billed charges. **Billed charges increased $1,471/day or 18% with the inclusion of an AT[26].**
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[22] http://www.nata.org/athletic-training

[23] http://www.nata.org/athletic-training/job-settings/physician-extender-setting Video "Spero Karas MD"

[24] Pecha F, Xerogeanes J, Karas S, Himes M, Mines B. Comparison of the Effect of Medical Assistants Versus Certified Athletic Trainers on Patient Volumes and Revenue Generation in a Sports Medicine Practice. *Sports Health, A Multidisciplinary Approach 2013; 5(4): 337-339*

[25] Nicolello T, Pecha F, Omdal R, Homaechevarria A, Nilsson K. Patient Throughput in a Sports Medicine Clinic with the Implementation of an Athletic Trainer, a Retrospective Analysis *Poster Presentation St Luke's Research Symposium Boise ID. Jan 2013*

[26] Haynes P. Athletic Trainers Productivity in an Existing Orthopedic Surgeon Practice. *Data Presented at National Athletic Trainers Association Annual Symposium June 2011*

- Children's Hospital of Wisconsin, Milwaukee WI: PCSM physicians use ATs in their physician practice. A second AT was introduced to a clinic for patient care. **Patient throughput increased by 5 patients per ½ day with the addition of a second AT. No change in clinic time or appointment delays was recorded and patient satisfaction remained high[27].**
- Heartland Orthopedic Specialist, Alexandria MN: Included an AT to their existing physician clinic. AT duties included seeing patients as well as scribing for physician dictations. **Patient volumes increased 15-20% with the addition of the AT and physicians noted finishing clinic earlier[28].**
- UW Health Sports Medicine, Madison WI: Patient visit time was compared to physician time with a patient; with and without the assistance of an AT. PCSM providers were able to see 10 to 20 percent more patients and orthopedists were able to see 15 to 30 percent more patients. **By removing ATs from the clinic model Physicians saw a decrease in patient throughput by 15-30%[29].**
- St. Luke's Sports Medicine, Boise ID: Implemented the use of athletic training residents in a rural family practice setting over a 5 week period. The addition of the ATs allowed for the ability have increased patient throughput. **Total of patients scheduled prior to start of ATs; 252. Additional patients added to existing schedule: 90. Total percent increase in patients: 26.3%[30].**

## By increasing patient throughput we can make assumptions on revenue models:

Medicare rates can be used to develop a business plan. They are transparent and easiest to assess where your private payer fees are as a percentage of Medicare. It allows us to build a business plan under the worst case scenario of being reimbursed 100% of Medicare.[31]

- 99213 - $78.54 (2012 Medicare Fee NE)
- 99203 - $137.73 (2012 Medicare Fee NE)

Assume current new vs. established visit ratio is 1 to 4 then your expected reimbursement for E/M is $88.21 per patient (in Medicare rates).

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.

- 1 pt per day X 3 days a week X 48 weeks a year X $88.21 collected per patient = $12,702.242 annually

Two additional patients/day - 3days/wk (6 pt's/wk.) = $25,404.48

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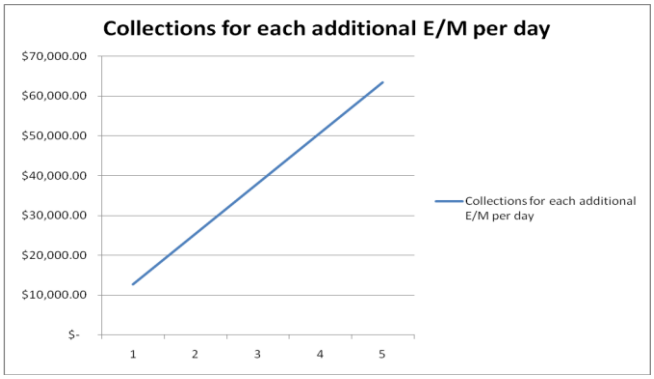
[27] Sharer K. Benefits of the inclusion of a second Athletic Trainer to existing Primary Care Sports Medicine Practice. *Data Presented at National Athletic Trainers Association Annual Symposium June 2012*

[28] Doyle M. Utilization of Athletic Trainers in an Orthopedic Clinical Setting *University of St Thomas, MBA Medical Group Management, 2005*

[29] Greene J. Athletic Trainers in an Orthopedic Practice *Athletic Therapy Today 2004; 9(5): 56-57*

[30] Pecha FQ, Bahnmaier L, Wetherington JJ, Homaechevarria AA, Schott J. Development of a rural family practice rotation in an athletic training residency program. *Editorial review, submitted March 2016, Athletic Trainer's Educators Journa*l

[31] Hajart AF, Pecha F, Hasty M, Burfeind SM, Greene JJ, The financial impact of an athletic trainer working as a physician extender in orthopedic practice. *Journal of Medical Practice Management*. 2014 Jan-Feb; 29(4)250-4




**By increasing patient throughput we can evaluate the downstream revenue:**
At a hospital-based sports medicine clinic in Atlanta GA, all new patients were evaluated for their associated downstream revenue within the hospital system. For fiscal year 2010, 9,427 new patients were seen by physicians in the practice. Patient revenue was determined by collections for new patient visits, return patient visits, MRIs, surgical procedures and patient visits in physical therapy. Percentages were determined for patients receiving ancillary services. 16.5% of all new patients went on to have surgery, 22% of patients went on to have a MRI, and 26.5% of patients went on to physical therapy at an average of 7 visits per patient. The average value of each new patient seen at the practice was $1,028[32].

Assumptions can be made through the increased patient throughput, provided by ATs working in the clinic, as to how many more new patients can be seen in the physician's clinic and what their associated downstream revenue will bring to the practice. Values may change due to clinic demographic and private payer contractual agreements.

| **Revenue Assumptions** | |
|---|---|
| FY 10 NPV's | 9,427 |
| Collections per NPV | 218.86 |
| NPV to RPV Ratio | 0.71 |
| Collections per PRV | 90.88 |
| NPV to Case Ratio | 6.08 |
| Average Collections per Case | 1,855 |
| FY 10 PT Referrals | 2492 |
| NPV to PT Referral Ratio | 3.78 |
| PT visits per Referral | 7 |
| Collections per PT Visit | 117.02 |
| NPV to MRI Ratio - (Man Care) | 733.86 |
| Collections per MRI | 4.56 |
| **NPV Value** | **$1,028** |

[32] Xerogeanes JW, Pecha FQ. Data collected at Emory Sports Medicine Center, Atlanta GA. Fiscal year 2010. *Presented American Association of Orthopedic Executives Annual Meeting 2011*

## Increasing Patient Satisfaction

Emory Sports Medicine Center conducted a study comparing orthopedic residents and AT residents. Patients would see either an orthopaedic medical resident or an AT as their initial clinician. The survey asked the patients to rate their caregiver's level of orthopaedic knowledge and satisfaction in eight different categories. In the clinical setting, ATs were perceived similarly to orthopedic medical residents[33].

| | AT | MD |
|---|---|---|
| Knowledge of the first clinician in comparison to your scheduled Physician: | **8.14** | **8.18** |
| Knowledge of first clinical in specialized field of orthopedics: | **7.46** | **7.51** |
| *Highest level of education you feel clinician has attained: | **7.45** | **8.16** |
| Extent to which the first clinician encountered adequately answered your Q's: | **8.46** | **8.56** |
| Extent to which the first clinician encountered efficiently managed your care: | **8.83** | **8.67** |
| Extent to which the first clinician demonstrated a professional manner: | **9.50** | **9.27** |
| Extent to which first clinician demonstrated strong communication skills: | **9.45** | **9.22** |
| Your overall satisfaction; from interactions with the first clinician: | **9.02** | **8.95** |

***Statistical Difference in Q #3**

Highest level of education you think this clinician has attained:

| High School | | Associates Degree | | Bachelors Degree | | Masters Degree | | Doctoral Degree | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Colorado Children's Hospital conducted a study using MAs and ATs, comparing patient satisfaction and the likelihood for patients to refer family and friends to the practice. Although patients spent more time in clinic, when interacting with an AT, patients reported significant increases in satisfaction and their willingness to refer friends and family to the practice[34].

[33] Pecha FQ, Nicolello TS, Xerogeanes JW, Karas SG, Labib S. Patient perceptions of athletic trainers and orthopaedic medical residents as primary clinical support staff in the sports medicine practice: A randomized double blinded prospective study. *J of Allied Health* 2015; 44(4):225-228

[34] Hoang Q MD, et al; *Poster presentation AMSSM 2012*

## Increasing Physician Satisfaction

St Luke's Sports Medicine sent a survey to 35 physicians, who have hired a residency trained AT, to evaluate their skills and physician satisfaction. 25 of the physicians surveyed have both residency-trained (RTAT) and non-residency-trained ATs working in the physician practice. Average scores were recorded for each of the eight questions[35]

**0-1 not at all; 2-3 minimal; 4-5 Adequate; 7-8 Very Well; 9-10 Exceptional**

| | | |
|---|---|---|
| How prepared do you feel a RTAT is to be integrated into your clinic | = | **8.74** |
| Comparing clinical skills of RTAT to non-residency-trained AT | = | **7.88** |
| Comparing musculoskeletal skills of RTAT to entry level PA or NP | = | **8.00** |
| Comparing the clinical skills of RTAT to MAs | = | **9.17** |
| Extent to which you feel patient satisfaction has improved having a RTAT in your practice | = | **7.88** |
| Extent to which your quality of life has improved (more specific MD time with patients, clinics running on time, more work completed during clinic time) having a RTAT in your practice | = | **8.45** |
| Extent to which your clinic has benefited (clinical efficiency, patient flow, patient volume) having RTAT vs. other physician extenders | = | **8.08** |
| Your overall satisfaction with utilizing a RTAT as a Physician Extender | = | **9.06** |

Based on the responses to the study, physicians who hired RTATs felt they were very qualified to be integrated into their clinic model and highly qualified in their clinical and musculoskeletal skills compared to other healthcare professionals in the clinic. Physicians also felt patient satisfaction improved, as well as improvement in their own practice and quality of life. Overall, physicians who hired a RTAT were exceptionally satisfied when they hired an AT to assist with patient care in their clinics.

[35] Pecha FQ, Bahnmaier LA, Hasty ML, Greene JJ. Physician Perception of hiring Athletic Training Resident graduates. *Human Kinetics 2014 – IJATT 19(2), pp 1-3*

## Improved Physician Clinic Efficiencies

St. Luke's Sports Medicine conducted a study to evaluate the various ways an AT can make a physician more efficient in the urban primary care setting. There were three areas that were investigated: patient total time (PTT = Time with patient + time documenting), time spent after clinic documenting and number of patients seen in a day. During a 6 week period, athletic training residents worked in a primary care clinic with the physician. This data was compared to a 2 week time frame prior to the addition of an AT[36].

**Patient Total Time (PTT)**

| Orthopedic patients | ATC Time | Nurse Time | Physician Time | Patient total time |
|---|---|---|---|---|
| ATC **before** Physician | 12.9min | N/A | 11.9 min | 24.8 min |
| Physician Alone | N/A | 5.5 min | 19 min | 24.5 min |

**Physician saved 7 minutes per orthopaedic patient with AT in clinic**
***Nurses spent an avg 4-7 minutes with patients**

**Number of Patients Seen**

| Patients seen/day | Clinic Day |
|---|---|
| With ATC | 24.2 |
| Without ATC | 21.2 |

***An average of 3 additional patients were seen with an AT per clinic day,** during a 6 week trial period

**Time Spent After Clinic**

| After Clinic | Time Spent Documenting | # Charts |
|---|---|---|
| With ATC | 28.5 min | 7 |
| Without ATC | 66 min | 21 |

***Physician saved 38 minutes dictating.**
***Physician had 14 less charts to dictate.**

With the inclusion of an AT in a primary care setting, the physician saved 38 minutes each day dictating charts after clinc as well as 14 less charts to dictate. This suggests two points of satisfaction for the physician: they are able to leave for the day sooner or have the ability to add on 3 patients per clinic day which in turn improves patient volume/access and increase in financial impacts.

[36] Koen SR, Pecha FQ, Omdal R. Role of Athletic Trainers in Improving Efficiency in the Primary Care Family Practice Setting. *Presented at National Athletic Trainers Association Annual Symposium June 2016 Baltimore MD.*

The University of Wisconsin-Madison performed a study aimed at measuring the impact of an AT in a sports medicine clinic in both efficiency and productivity. The quality improvement study objectively quantified time spent on tasks for the physician extender staff. The physician extender staff included orthopaedic residents, primary care residents and fellow physicians. In an 8 week period, each AT completed a self report work diary in which they recorded time on-task (TOT) for 9 common task categories: rooming patients, performing history and physical examination, radiology waiting for physician, presenting case to physician, time spent with physician in the room, time spent on patient education without physician in room, fitting durable medical equipment and dictating/scribing[37].

| Time on Task (Minutes) | AT | Non-AT |
|---|---|---|
| History/Phys. Exam | 8.67 | 12.57 |
| Case Presentation | 1.94 | 2.36 |
| Patient Education | **2.4** | 1.11 |
| Documentation | 4.03 | 6.23 |
| **Total** | **17.04** | **22.27** |

A sports medicine patient care delivery model that effectively employs physician extenders resulted in improved physician efficiency, by reducing time spent in physician non-essential activity during each patient visit. This time savings could be used to improve patient throughput, thereby increasing patient access to physicians and revenue generated. Our findings indicate that the AT is the most efficient physician extender provider in our clinic setting. The importance of efficient and effective delivery of care cannot be underestimated in high volume specialties like orthopedics and sub-specialties like sports medicine. Understanding the tasks that physicians and support staff should perform is critical as more and more demands are placed upon the care delivery team.

[37] Khaja S, Greene JJ, Wilson J. The Impact of Athletic Trainers in a Sports Medicine Clinic: Improving Efficiency and Productivity. *Poster Presentation AMSSM 2012*

# Athletic Trainer's Clincal Diagnostic Accuracy

St. Luke's Sports Medicine has conducted a study to further measure an AT's ability to evaluate and diagnose accurately within a physician based practice. ATs work in many settings under the direction of a supervising physician; increasingly AT's are working alongside physicians in the physician practice setting. The Commission on Accreditation of Athletic Training Education (CAATE) has developed athletic training residency standards aimed to advance the knowledge of ATs within specific clinical areas of focus (i.e., prevention, clinical evaluation and diagnosis, immediate care, treatment, or rehabilitation and reconditioning). Many of these residencies are housed within the physician practice setting with a clinical focus in evaluation and diagnosis. Although evaluation and diagnosis is an educational domain of athletic training, there is no research to date on the diagnostic accuracy of ATs in any setting or at any educational level. The study objective is to analyze the diagnostic accuracy of ATs who have completed a Post-Professional ATR program or are within the final trimester of their training (RTAT) and those ATs beginning their entry level training (ELRAT)[38].

**Diagnosis Accuracy (n=91 patients)**

| | Shoulder | Knee | Overall |
|---|---|---|---|
| Residency Trained AT | 32/33 = 97% | 37/31 = 88% | 59/64 = 92% |
| Entry Level AT | 6/8 = 75% | 8/19 = 42% | 14/27 = 52% |

Those ATs who have completed or are in the final trimester of residency have demonstrated improved clinical diagnosis and evaluation skills and are more accurate than ELRATs. This adds credibility to AT Post-Professional residency programs and the goals of CAATE to advance education of AT's within a specific clinical area of focus.

[38] Omdal RL, Koen SM, Pecha FQ, Nicolello TS, Wetherington JJ, Beckmann JT. The Diagnostic Accuracy of Residency vs Entry Level Residency Athletic Trainers in Shoulder and Knee Pathologies. *Poster Presentation national Athletic Trainers Association Annual Symposium June 2016. Baltimore MD*

# Section 6: Integrating the Athletic Trainer into the Physician Practice

With the evolution of national healthcare policies, orthopedic and sports medicine practices will have to react to the challenges they may face with policy changes and diminishing reimbursement. They are forced to consistently evaluate their processes and find ways to deliver care more efficiently and effectively. Throughout this evolution, clinics will be challenged to maintain high clinical value for patients while adding financial value to the practice. ATs can play an integral part with meeting practice needs through their specialized skill sets.

This section will help to identify key steps in proper integration of the AT into the physician's office. ATs can fill many roles within the orthopedic clinic and the evaluation of current staff and their associated skills will help determine the roles ATs can best provide to the practice. All professionals in the clinic must work within their scope to provide the highest level of care. With proper understanding of clinicians' roles and responsibilities, a physician practice can maintain patient needs, improve satisfaction and allow for financial stability (section 4).

It is recommended when hiring for this position, a post professional residency trained AT is the best fit to be effective at the inception of their hire. Although all ATs have an exceptional background in musculoskeletal education, a seasoned AT with the drive to learn and desire for patient care is also a good choice when looking to fill this position.

## How to add an Athletic Trainer into clinic models

Finding an AT is not the hard part, as stated above; the profession's projected growth is approximately 21% (section 4). Finding the right ATs may require more research. The inception of post professional residency programs is providing ATs with the ability to learn skills necessary to be efficient in the physician practice through on-the-job training. There are currently only a few programs graduating approximately 18-20 ATs per year *(appendix 1)*.

ATs do have a unique skill set in evaluation and diagnosis of musculoskeletal injuries and administration making them a great fit to work in the physician clinic. The AT with experience or residency trained may be a better fit for the clinic as they understand the roles and demands necessary to be successful from day one.

## How Athletic Trainers' skills fit into current clinic models

As healthcare professionals, ATs will play an integral part in care throughout the patient's treatment. To maximize their background in musculoskeletal injuries, ATs' clinic responsibilities should include: greeting and rooming the patient, updating EMR, taking a history of present injury, performing complete physical exam and completing diagnostic orders all before the physician has seen the patient. The AT will present all findings and any records necessary to the physician. The physician should have a thorough understanding of the patient history and differential diagnosis prior to entering the room. The AT can follow up with patient education and complete any surgical or referral consult forms prior to the patient leaving clinic.

Other duties ATs can perform in the clinic would include: scribe or dictate the medical record, pre- and post-operative patient eduation, follow up with patient clinical phone calls, fit DME and soft goods, neurocognitive testing, procedure preparation, possible procedure room and OR assist and complete administrative duties[39].

## Athletic Trainers in addition to mid-level providers

If used properly, the AT working in an orthopedic or sports medicine clinic setting should allow the PAs and/or NPs to function more autonomously in a CMS revenue generating capacity. When mid-level providers function as autonomously and independently as possible, the clinic can minimize the occurance of two billable providers seeing the same patient and maximize collections and downstream revenue. Mid-levels can maximize procedures, function in the OR as assists and in orthopedic urgent care roles.

ATs can see patients concurrently with physicians in clinic in the global period post-surgery allowing for traditional mid-level providers roles to shift[40,41].

There are many considerations when implementing staff changes including: patient volume, surgical case load, billing considerations, practice structure - orthopaedic residency/fellowship, current utilization of ATs withni the practice, and the need for an autonomous clinic. As these considerations are reviewed, the addition of ATs can provide positive rewards in the clinical staffing model.

[39] Greene JJ, and Khaja S. Don't Stop at Implementation; Optimize Your EMR for Orthopedics. *American Association of Orthopedic Executives Newsletter February 2012*

[40] Greene, JJ. Using Athletic Trainers with Mid-Level Providers to Add Clinical and Financial Value to an Orthopedic Practice. *American Association of Orthopedic Executives Newsletter November 2012*

[41] Pecha FQ, Greene JJ, Daley J, Shea K. Integrating Physician Assistants and Athletic Trainers into Your Orthopedic Practice. *Sports Medicine Update: Newsletter of The American Orthopedic Society For Sports Medicine July/August 2013*

**Appendix 1:**
**Current Athletic Training Residency Programs concentrated in the physician practice setting.**

- St Luke's Sports Medicine, Boise, ID*
  - https://www.stlukesonline.org/health-services/specialties/programs/st-lukes-sports-medicine-program/athletic-training-residency-program

- Emory Sports Medicine, Atlanta, GA*
  - http://www.emoryhealthcare.org/sports-medicine/fellowship/certified-athletic-trainer-fellowship-program/index.html

- University of South Carolina, Columbia, SC #
  - http://www.uscsportsmedicine.com/component/content/122?task=view

- University of Wisconsin Healthsystem, Madison, WI
  - http://www.uwhealth.org/health-professionals/internships/athletic-training-residency/program-description/31857

- The Steadman Clinic, Vail, CO
  - http://thesteadmanclinic.com/athletic-training-program-info.asp

- University of Michigan MedSport, Ann Arbor, MI
  - http://www.med.umich.edu/medsport/HealthPros/atc_res.html

- University of Iowa, Iowa City, IA
  - http://www.uisportsmed.com/index.php/fellowships/athletic-training-physician-extender-residency.html

- Michigan State University, East Lansing, MI
  - http://www.sportsmed.msu.edu/Residency/index.html

- Spectrum Health Medical Group, Grand Rapids, MI
  - http://www.shmg.org/body_services.cfm?id=2582&fr=true

- Connecticut Children's Medical Center, Harford CT
  - http://www.connecticutchildrens.org/our-care/elite-sports-medicine/research-education-and-motion-analysis/residency-program/

- Orthopedic and Fracture Specialists, Portland OR
  - http://www.oandfs.com/athletic-training-residency-program/

- Orthopedic Surgery and Sports Medicine Teaching and Research Foundation
  - http://www.otrfund.org/educational-programs/#physext

* CAATE Accredited Post-Professional Athletic Training Residency Programs

# Currently in CAATE review process

# Integrating the Athletic Trainer into the Physician Practice Setting

This section will help to identify key steps in proper integration of the AT into the physician's office. ATs working in the physician practice setting currently have no clearly defined job market. The AT interested in this employment setting often must be willing to build a business case for such a position, proving their value to the potential employer. The accompanying Business Case defines the value of ATs working in the physician practice and should be used as a resource to develop a business proposal as well as answer questions potential employers may have.

**Practice integration:**
Are you filling a vacancy or creating a new position? Either way it is imperative to demonstrate your value to the practice. To differentiate yourself from other healthcare professionals in the practice, measure or track the difference you bring. Remember, integrating the AT may include adding staff, which must be supported by positive value.

**Where to find a job:**
More and more physicians and administrators are understanding the roles and benefits an AT can bring to a physician practice, but this career path is still in it's infancy. To find a job in the physician practice, the AT needs to be proactive in their pursuit, often having to find or create the job, selling yourself as a viable and effective member of the healthcare team. There are these kind of positions posted on the NATA career center, but if the AT desires this career path, s/he must be willing to do the work to build the business case and market themselves.

**Where to look for a position:**
Be resourceful and look at every opportunity to find or create a possible position:

- Talk to your team physician; discuss the role an AT could have working in the physician office
- Research job openings for MA, PA, RN positions being recruited for in an orthopedic setting through newspapers, employer websites, recruiters or on Physician Extender websites
    - Learn about the practice and how your skills may match those of the open position.
    - Write a cover letter to show your skills meet their needs, selling yourself as a professional who can perform the necessary duties, and potentially more.
    - Meet with the practice administrator or physician filling the position, asking questions on job duties and educate how your skills as an AT meet their clinic needs.
- Complete an Athletic Training Residency Program where you will learn the necessary skills to become an efficient and effective clinician. These programs usually have great position leads for their graduates.
- Find out what practices already employ ATs and reach out to their practice. These practices already understand the model and you will have mentorship and a positive learning experience.

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