



10th Annual Orthopedic, Spine and Pain Management-Driven ASC Conference
Improving Profitability and Business and Legal Issues
June 14-16, 2012
Walter Hotel - North Michigan Avenue - Chicago, Illinois

ORTHOPEDIC, SPINE & PAIN MANAGEMENT

Implementation and Utilization of Voice Recognition Software

A Study in Patience, Persistence, and Payoff

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My Disclosures


http://www3.aaos.org/education/disclosure/search/disclosure_search.cfm

- 2 Stryker
Nuance
- 3B Stryker
Nuance
- 8 Clinical Orthopaedics and Related Research (CORR)
American Journal of Sports Medicine (AJSM)
ORTHOPEDICS and SLACK Incorporated
Wolters Kluwer Health – Lippincott Williams & Wilkins



Implementation and Utilization of Voice Recognition Software

- Introduction
- True “Cost” of Transcription
- “Cost” of Voice Recognition
- How to Start?
- Effect on Work Flow and Other Uses for VR.
- “Cost Effectiveness” of Voice Recognition
- Conclusion / Demonstration / Discussion



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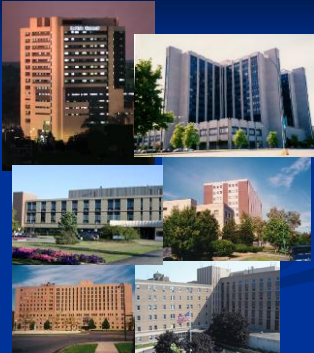


State University of New York at Buffalo School of Medicine and Biomedical Sciences



UB ORTHOPAEDICS & SPORTS MEDICINE

- Sports Medicine (7)
- Shoulder & Elbow (2)
- Foot & Ankle (3)
- Adult Reconstruction (4)
- Pediatrics (3)
- Trauma (4)
- Tumor (2)
- Spine (3)



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Started practice... August 2007

By December 2007.....

**Quickly Introduced to the Unbelievable
"Cost" of Running a Practice**

"Dean's Tax" "Advertising" "Office Supplies"
"Malpractice Insurance" "Rent / Lease"
"Surgery Center" "New EMR" "Overhead"
"Legal Expense" "Billing and Administration" "Transcription"
"Buy-in" "Chairman's Tax"



The Monthly Spreadsheet

Statement of Profit & Loss - Fiscal Year 2007												
	January	February	March	April	May	June	July	August	September	October	November	December
REVENUE												
Fee For Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30	\$ 742	\$ 12,286	\$ 27,055	\$ 16,244
Charitable Fee For Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pharmacy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 289
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 222
TOTAL BILLING REVENUE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30	\$ 742	\$ 12,286	\$ 27,055	\$ 16,555
Contract	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,187	\$ 4,187	\$ 4,187	\$ 16,867
Grant	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 753
Charter Income	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Income	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL OTHER REVENUE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,187	\$ 4,187	\$ 4,187	\$ 17,620
TOTAL REVENUE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30	\$ 4,929	\$ 16,473	\$ 31,242	\$ 14,175
EXPENSES												
Dean's Tax	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1	\$ 37	\$ 618	\$ 1,363	\$ 834
Chair's Tax	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1	\$ 30	\$ 494	\$ 1,090	\$ 667
Hospital Overhead / Rent	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 568	\$ 568	\$ 568	\$ 2,272
SMI Overhead	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,693	\$ 1,877	\$ 735	\$ (799)
Harlem Road Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Malpractice Insurance	\$ 1,495	\$ 1,495	\$ 1,495	\$ 1,495	\$ 1,495	\$ 1,495	\$ 1,495	\$ 1,495	\$ 1,495	\$ 1,495	\$ 1,495	\$ 17,940
Transcription	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 343	\$ 1,090	\$ 599	\$ 975
Office Supplies	\$ 1,509	\$ 1,113	\$ 1,152	\$ 871	\$ 167	\$ 167	\$ 167	\$ 167	\$ 167	\$ 167	\$ 167	\$ 1,913
Medical Supplies	\$ -	\$ 274	\$ 87	\$ 1,232	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,585
Depreciation	\$ 70	\$ 132	\$ 338	\$ 211	\$ 310	\$ 310	\$ 310	\$ 310	\$ 310	\$ 310	\$ 310	\$ 3,666
Professional Expenses	\$ 820	\$ 1,644	\$ (107)	\$ 8,284	\$ 2,557	\$ 14,147	\$ 14,147	\$ 14,147	\$ 14,147	\$ 14,147	\$ 14,147	\$ 171,898
Purchased Services	\$ -	\$ 564	\$ 273	\$ 979	\$ 159	\$ 159	\$ 159	\$ 159	\$ 159	\$ 159	\$ 159	\$ 1,914
Legal & Accounting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Advertising	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL EXPENSES	\$ 3,894	\$ 4,618	\$ 3,082	\$ 11,905	\$ 2,133	\$ 16,146	\$ 16,146	\$ 16,146	\$ 16,146	\$ 16,146	\$ 16,146	\$ 171,898
NET PROFIT / LOSS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000

First 5 Months: A Partial List of Expenses

	August	September	October	November	December	Total
EXPENSES						
Dean's Tax	\$ 1	\$ 37	\$ 618	\$ 1,363	\$ 834	\$ 2,853
Chair's Tax	\$ 1	\$ 30	\$ 494	\$ 1,090	\$ 667	\$ 2,282
Hospital Overhead / Rent	\$ -	\$ 568	\$ 568	\$ 568	\$ 568	\$ 2,772
SMI Overhead	\$ -	\$ 1,693	\$ 1,877	\$ 735	\$ (799)	\$ 3,506
Harlem Road Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Malpractice Insurance	\$ 1,495	\$ 1,495	\$ 1,495	\$ 1,495	\$ 1,495	\$ 7,475
Transcription	\$ -	\$ 343	\$ 1,090	\$ 599	\$ 975	\$ 3,007
Office Supplies	\$ 1,509	\$ 1,113	\$ 1,152	\$ 871	\$ 167	\$ 5,812
Medical Supplies	\$ -	\$ 274	\$ 87	\$ 1,232	\$ -	\$ 1,593
Depreciation	\$ 70	\$ 132	\$ 338	\$ 211	\$ 310	\$ 1,061
Professional Expenses	\$ 820	\$ 1,644	\$ (107)	\$ 8,284	\$ 2,557	\$ 14,147
Purchased Services	\$ -	\$ 564	\$ 273	\$ 979	\$ 159	\$ 1,914
Legal & Accounting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Advertising	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



What Can I Control??

- Dean / Chair Tax? **NO**
- Malpractice Insurance? **NO**
- Lease / Rent? **NO**
- Office Supplies? **Sort of.**
- Direct Staff? **Yes, but...**
- Transcription? **Absolutely.**



So I asked the Question....

Boy was I surprised ??

**It was a RUDE
awakening !!**

Note #1

I dictated the entire note.

Transcriptionist types this entire note.

PATIENT: "PATIENT X"

PHYSICIAN: Michael A. Rauh, M.D.

DATE: April 21, 2008

DOB: XX/XX/XXXX

"PATIENT X" returns today in followup regarding her left bimalleolar ankle fracture. I had seen her last week and at that time had discussed with her both nonoperative and operative intervention. She has one of the very few bimalleolar ankle fractures which I would consider treating nonoperatively. At the time last week she had near-perfect alignment and maintenance of her fibular length. She was placed into a short leg cast. She returns today complaining of some "burning type pain" in the medial and lateral aspect of her lower leg. She denies any other major complaints.

PAST MEDICAL HISTORY: I have again reviewed the patient's general medical history and there has been no interval change.

EXAMINATION: Reveals her cast is intact. Her distal examination reveals her sensation to be intact. Capillary refill is less than two seconds. Cast is in good shape.

IMAGING: 04/21/08 (MACC - official report) Radiographs reveal a bimalleolar ankle fracture. Her medial joint space is intact. Tibiotalar alignment is intact. Her fibular fracture is well aligned as well. It is not appreciably short. The mortise radiograph does reveal slight diastasis of her medial malleolar fragment which measures approximately 1 to 2 mm at the joint at worst. Overall her joint space is preserved.

ASSESSMENT & PLAN: "PATIENT X" is a 45-year-old female who is in followup regarding her left bimalleolar ankle fracture. At this time her alignment is still within acceptable limits. I would not proceed with any offers of surgical intervention. I feel that she should be able to heal this nicely with nonoperative treatment. I will plan on seeing her back in one more week for repeat radiographs. She should have AP, lateral and mortise radiographs of her left ankle.

Seen By:
Michael A. Rauh, M.D.
MAR:ppp

What was done?	<u>Typed all sections including headings, bold, underlined</u>	
	305 words, 1913 characters w/ spaces 35 lines	
Cost?	\$6.73	\$ 0.0221 per word \$0.0035 per character \$0.19/line
Reimbursed?	99024 (post-op in global period)	\$0.00
Total Income:	\$ - 6.73	Loss

Note #2

	PATIENT: "PATIENT X" PHYSICIAN: Michael A. Rauh, M.D.	DATE: April 21, 2008 DOB: XXXX/XXXX/XXXX
Dictated	"PATIENT X" returns today in followup regarding his bilateral knee osteoarthritis. He had undergone his second Synvisc injection last week. He returns today for his third and final injection. He notes no complaints or concerns with his last injection.	
Templated Note	PAST MEDICAL HISTORY: I have again reviewed the patient's general medical history and there has been no interval change.	
"Injection risk" SPIEL Transcriptionist inserted name of patient.	PROCEDURE: "PATIENT X" and I have discussed the diagnosis of osteoarthritis and the various treatment options. We have discussed non-interventional measures, along with injections, along with operative interventions. At this time, given our consensus of approach, we have decided to pursue a series of injections with Synvisc. I have taken the time to discuss the possible benefits of an injection with the patient and have as well discussed the possible common and not-so common complications associated with this intervention. These included but were not limited post-injection soreness and bleeding, but also included the rare but serious issues of local and systemic infection, cardiac toxicity, as well as chondrolysis. As well, I have discussed rare possibility of a post-injection infection-like flare as a result of this injection. We are in agreement and have decided to proceed.	
"Knee Injection" SPIEL	Informed consent was obtained as outlined above. I then proceeded to confirm with the patient the correct site and side of the injection. The area was identified and pertinent anatomy was outlined as needed. A topical anesthetic was administered. The site was prepped with iodine and alcohol. Using a small bore needle, sterile Synvisc was injected through a antero-lateral approach. The entire vial of Brand Name (Lot V0765, Expiration 2010-10) was administered without complications. As well, the left knee joint <u>left knee joint</u> was injected <u>injected</u> through an antero-lateral approach and approximately 5 cc of Brand Name (Lot V0765, Expiration 2010-10) was administered without complications. Pressure was held, and injection was well tolerated. The patient tolerated the procedure well.	
Only the Lot number and Expiration date are added.	ASSESSMENT & PLAN: "PATIENT X" is status post his last and final Synvisc injections. He is doing well. He has not noted significant improvement as far as these injections yet. It does take approximately 8 to 10 weeks before anyone might notice some improvement with these. We will plan on seeing him back in approximately 10 to 12 weeks for a repeat clinical evaluation. He will contact our office for an appointment.	
Dictated by me	Seen By: Michael A. Rauh, M.D. MAR:ppp	

What was done?	<u>Typed two sections: spiel with "Lot information"; bold, underlined</u>		
	<u>True work</u>	<u>Billed work</u>	
	97 words	375 words	
	8 lines	38 lines	
Cost?	\$9.03	\$ 0.0241 per word \$0.0037 per character \$0.24/line	
Reimbursed?	J7322 X 2 20610	\$ 10.29 x2 \$28.81 x2 Total:	\$20.58 \$57.62 \$78.20
Total Income:	\$ 69.17	Profit	

Note #3

Templated Note	April 9, 2008
Templated Note	Doctor PMD, M.D. PMD Doctor Family Medicine 70 Buffalo Lovers Snow Road Buffalo, NY 14224
Templated Note	RE: "PATIENT X" DOB: XXXXXXXX EXAM: 04/09/08
Templated Note	Dear Doctor PMD, M.D.:
Dictated by me	I had the pleasure of seeing "PATIENT X" in consultation regarding her right knee injury. "PATIENT X" is a 15-year-old female who was playing basketball in November of 2007. She sustained a noncontact twisting injury to her right lower extremity. She fell and heard a pop which was followed by a fair amount of swelling in and about her right knee. She was seen and evaluated. Ultimately she was diagnosed with an ACL injury, had MRI obtained and has participated in physical therapy. Due to some insurance issues she has presented to my office for initial consultation and evaluation. The patient is seen and examined in the presence of her mother.
Dictated by me	The details outlined above were corroborated. She does not indicate any further issues with regard to her right knee she has had several episodes of instability over the last week or so. Despite physical therapy and an improvement of her swelling, she continues to have symptoms related to her instability. She does have some discomfort as well, however it is fairly minimal.
Dictated by me	PAST MEDICAL HISTORY: The patient's past medical and surgical history is contained in our office template which has been completed by the patient and has been reviewed with the patient by me. A copy is available to you upon request. I have reviewed her medications and allergies; she has no allergies and no medications.
Dictated by me	EXAMINATION: "PATIENT X" is a 15-year-old female who is alert and oriented x3, breathing comfortably 18 breaths per minute. She is in no acute distress. She is 5'7" tall, weighs 172 pounds. She ambulates about the room without antalgics. Inspection of her overall alignment reveals it to be straight bilaterally. Squat examination reveals her legs to have full range of motion as far as flexion, extension, internal and external rotation. Right knee examination reveals no effusion. There is no appreciable tenderness to palpation. Patella tracks nicely. There is no apprehension, there is no grind. Lachman reveals a 2+ laxity. There is guarding with a pivot maneuver. Posterior drawer is negative. Collum is intact. Motor strength is 5+. Distal neurovascular examination is intact. Skin over the anterior aspect of her knee is intact as well. There are no skin lesions, scars or ulcers. Opposite lower extremity reveals a stable knee. There is no effusion. There is no tenderness to palpation. She is neurovascularly intact there as well.

Dictated by me	IMAGING: 11/30/07 (reviewed) X-rays, AP, lateral and notch views, reveal evidence of an effusion. No evidence of acute fractures.
Dictated by me	04/09/08 X-rays reveal no evidence of acute fractures or dislocations. There is no evidence of effusion. Bony and soft tissue structures are unremarkable.
Dictated by me	X-ray Impression: Normal bilateral knee radiographs.
Dictated by me	MRI: 01/09/08 (personally reviewed - report available) I do agree with the findings of anterior cruciate ligament tear, bone bruising in the usual locations, no evidence of meniscal tear, joint effusion.
Dictated by me	ASSESSMENT & PLAN: "PATIENT X" is a 15-year-old female with a right knee ACL tear. She has undergone physical therapy already and was set for surgical intervention with Dr. Ortho - Other. I have discussed with her that she could certainly follow up with him for surgical intervention, however she is declining at this time due to "insurance purposes."
Dictated by me	From our standpoint she has no appreciable pain, no effusion and has had discussed the risks and benefits of operative vs. nonoperative intervention. I have had a lengthy discussion with her and her mom today in addition to her examination, lasting approximately one hour to an hour and 15 minutes with regard to her findings and as well as a discussion of ACL reconstruction in general. Most of the details had already been covered by Dr. Ortho - Other, however I did proceed with this again to their satisfaction. I have enclosed as an addendum an outline of the discussion that I usually have with patients who have ACL injuries.
Dictated by me	At this time "PATIENT X" would like to proceed with right knee arthroscopy, ACL reconstruction using autologous hamstring tendons. We will make plans to proceed with this in the near future. In the meantime she is to
Dictated by me	avoid activities that might result in a twisting injury to her right lower extremity. Again, we also discussed the possibilities of using alternative grafts and the risks were reviewed. Additionally we discussed the possibility of unanesthetized repair and other arthroscopic procedures at the time of surgery. They are prepared and informed consent was signed. We will see her for a final preoperative discussion just prior to surgery.
Templated Note	Sincerely, Michael A. Rauh, M.D. MAR.pgp
Inserted by transcriptionist	cc: Dr. Ortho - Other

	ADDENDUM
Templated Addendum	"PATIENT X" has been diagnosed with an injury to the anterior cruciate ligament (ACL). Initially following the management of her ACL injury, a period of physical therapy was initiated in an attempt to optimize her knee range of motion. Prior to surgical intervention that which "PATIENT X" had been advised to avoid was to engage in any activities which involve pivoting, twisting, turning or pivoting. These activities put the ACL at risk of further tearing and pivoting which could lead to additional damage within the knee joint itself. Certainly, it is well known that with the initial injury to the ACL, there is a cascade of biologic factors which are released into the knee joint which produce some patients to progress to osteoarthritis irrespective of their knee ligament reconstruction. Individuals with more severe injuries to their cruciate ligament are at greater risk of developing these biologic changes. However, it is not unexpected to see a patient with a mild injury to the ACL develop these changes as well. The medical community is in odds as to why this develops in some patients and not others, however we are certain that <u>physical therapy</u> is one factor.
Only the "PATIENT X" name was inserted in the source document	I have explained at great length "PATIENT X" the reasons why we offer ACL reconstruction to patients in order to provide a stable knee as possible. The additional signs from accumulating with each additional pivot and/or subluxation. Occasionally, these periods of pivoting may occur with simple activities, while in others they occur with aggressive sporting/work activities. In these events and patient factors which determine the patient's potential need to have an ACL reconstruction. I have discussed the risks of chronic, activity intolerance, pain, therapy, joint inflammation and possibly infection. None of these interventions have been reliably shown in randomized prospective studies to prevent subluxations from occurring in the ACL deficient knee.
Templated Addendum	I have again discussed the diagnosis and natural history of ACL (anterior cruciate ligament) injury along with and without reconstructive and chondral repair. We discussed in detail the nature of knee pathology, the anatomy of the knee, particularly the chondral cartilage, meniscal cartilage and the supporting ligamentous structures including the ACL, PCL, LCL, and MCL. We also discussed alignment and its influence on pathophysiology of the knee. We discussed the current medical understanding of ACL injuries, meniscal tears, chondral injuries and the potential etiology to prevent osteoarthritis despite operative intervention. We briefly discussed the effect potential causes of knee pain including hip pathology, knee synovitis, swelling, chondral damage and injury, osteoarthritis, instability and infection.
Templated Addendum	I discussed that given the present context, surgical reconstruction is a reasonable option. I discussed the use of knee arthroscopy and ACL reconstruction. I have discussed the pros and cons of the various types of reconstruction: along with the various options of reconstruction including, but not limited to autograft knee grafts (patella bone and hamstring harvest) - and the complications and co-morbidities that are inherent to graft procurement (patellar fracture, patella maltrauma injury, swelling, osteopenia, osteoarthritis, bone marrow edema). I have discussed the pros and cons of the various types of tissue allografts - and the risk of exposure to hepatitis, HIV, and other documented and undocumented pathogens. I have also discussed the pros and cons of the various types of non-anatomical grafts (donor derived) commercially available for graft fixation, along with the cost but usual probability of mechanical implant failure.
Templated Addendum	I have also discussed the possibility of performing a cyanoacrylate, chondroplasty, and partial meniscectomy. I have discussed the possibility of performing a meniscal repair in the state of ACL reconstruction and the anticipated long-term benefits to this procedure. I have also discussed the possibility of meniscectomy as a result of the attempted repair, which is a known complication of such an intervention. "PATIENT X" did agree that the anticipated long-term benefits to attempting a meniscal repair outweigh the risks associated with the procedure.
Templated Addendum	I discussed the potential for improvement as well as the rare but possible risk of worsening problems with any surgical procedure. With regard to surgical intervention, we discussed in great detail the surgical risks, which included but were not limited to, infection, bleeding, nerve injury and tendon injury. I also discussed the potential need, in the event of unforeseen operative findings, to expand the scope of the procedure to treat the findings. I explained how this could potentially impact both the surgery, recovery and outcome. Specifically, I have discussed the possibility of meniscal repair and reconstruction of the subchondral bone. These two procedures carry with them

My Transcriptionist Also Said...

- "You talk too much..."
- "Just think of how much time I am saving you..."
- "It was the agreed on contract price / line..."
- "Your partners don't seem to mind..."
- "But I have employees to pay"
- "You focus on surgery...I'll take care of the dictation..."



I Said...

You're Fired!!



I started to look around...

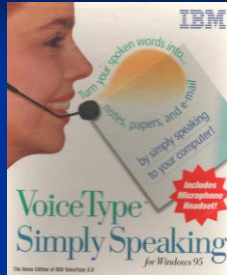
- Other transcriptionists were willing to work
 - insert "spiels and addendums" as a "key stroke"...
 - Not as a line / character charge
- Re-negotiated the "contract"
 - Partners didn't know they were paying so much
 - They "didn't even think about it"
- I was already saving \$\$ and didn't do much but start to think



Other options??

- Tried in College
- Didn't work well...
- **Very Slow**
 - Computer and processor
 - RAM
- Could type faster myself!

Not an
option...



Anything New??

- Widely used voice recognition software
- "Dragon-Naturally Speaking"®
- Nuance
- **May be an option...**



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“So...What’s it Cost?”

“What’s it Cost?”

- Software / Site License \$2000 - \$3000



“What’s it Cost?”

- Software / Site License \$2000 - \$3000
- Noise Canceling Microphone \$300 - \$400



"What's it Cost?"

- **Software / Site License** \$2000 - \$3000
- **Noise Canceling Microphone** \$300 - \$400
- **Bluetooth Headset** \$150 - \$250
 - Depends on provider preferences



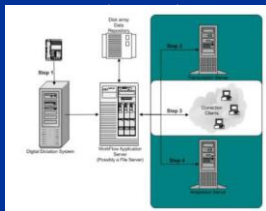
"What's it Cost?"

- **Software / Site License** \$2000 - \$3000
- **Noise Canceling Microphone** \$300 - \$400
- **Bluetooth Headset** \$150 - \$250
- **Computer Upgrade** \$ 2000 – new
 - May not be necessary
 - XP Pro
 - 2.27 GHz processor
 - 3.0 GB of RAM



"What's it Cost?"

- **Software / Site License** \$2000 - \$3000
- **Noise Canceling Microphone** \$300 - \$400
- **Bluetooth Headset**
- **Computer Upgrade**
- **"Voice Profile Server"**



http://www.nuance.com/naturallyspeaking/pdf/ds_DNS10_SDK_Server.pdf (Accessed 02/12/2011)

"What's it Cost?"

- Software / Site License \$2000 - \$3000
- Noise Canceling Microphone \$300 - \$400
- Bluetooth Headset \$150 - \$250
- Computer Upgrade \$ 2000 – new
- "Voice Profile Server" \$ 2000 (total)
 - Do you work at multiple sites
 - Benefit is that your "voice profile" can travel with you
 - Any computer...anywhere..
 - Speed of computer may affect the speed of the transcription
 - Cost depends on your IT personnel and size / speed of server / and number of partners to share in cost.



"What's it Cost?"

- Software / Site License ~~\$2000 - \$3000~~
- Noise Canceling Microphone ~~\$300 - \$400~~
- Bluetooth Headset \$150 - \$250
- Computer Upgrade \$ 2000 – new
- "Voice Profile Server" \$ 2000

\$2,300 – \$8,000



Which Systems Does it Work with ?

- Any software with a cursor
- PC
- MAC
- Local Servers
- "Cloud"



Which Systems Does it Work with ?





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How to Start?

- **Install the Software** 5 minutes



How to Start?

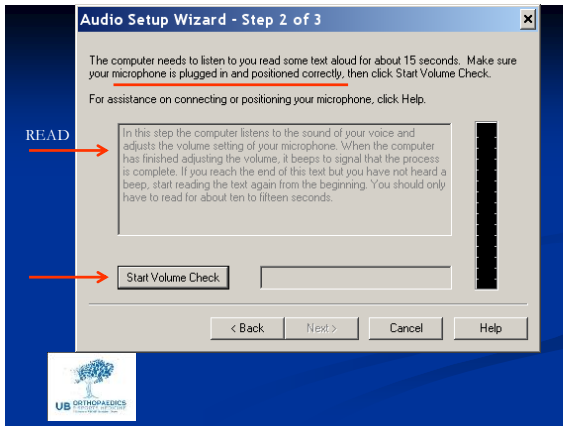
- **Install the Software** 5 minutes
 - **Training** 10 minutes
 - Involves checking the microphone / volume
 - Reading aloud with "pre-written scripts"
 - Computer "learns" your voice / intonation / preferences through "WORD ASSOCIATIONS"
 - Deep voice ?
 - High voice ?
 - Accents ?
- } **Doesn't matter !!!**



How to Start?

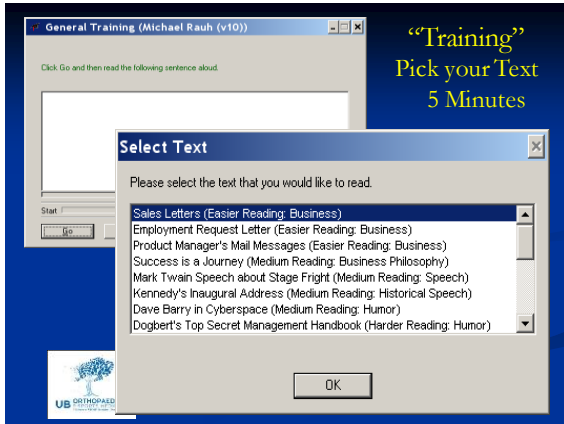
- **Audio Setup** 2 minutes



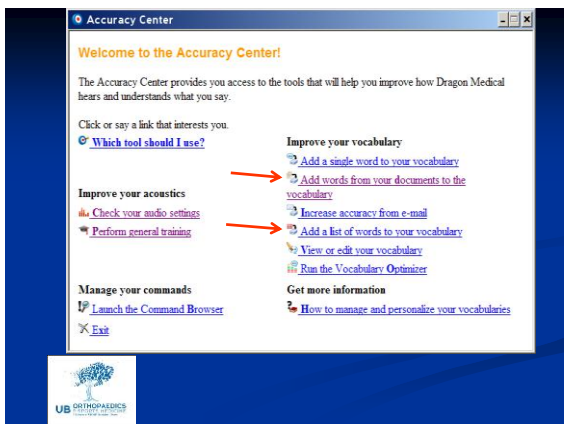












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Are we Ready for the Office?

- “Dragon Time” 1 – 3 months
 - Initially
 - Build in extra time into day
 - Dragon “visit”
 - As time goes on...
 - Much LESS time devoted to Voice Recognition
 - Better notes !
 - Documentation which better reflects your work
 - Accurate Billing based on documentation



Are we Ready for the Office?

- “Invest Work Now... Pay Dividends Later”
 - Dictating Notes
 - At first, you are dictating everything
 - Takes some extra time at first
 - Remember ... “WORD ASSOCIATIONS”
 - Getting used to the buttons / windows



Are we Ready for the Office?

- "Invest Work Now... Pay Dividends Later"
 - Dictating Notes
 - "Hey... I just said the same thing as before"
 - A spiel
 - An examination
 - A discussion



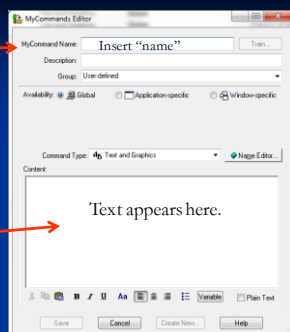
Are we Ready for the Office?

- Don't "Say the Same Thing Twice"!!!
 - Turn that "note" into a "shortcut"
 - Pays dividends next time you want to use the same phrase, sentence, paragraph, note...
 - Use your mouse and highlight the text
 - Say ... "Make that a Shortcut"

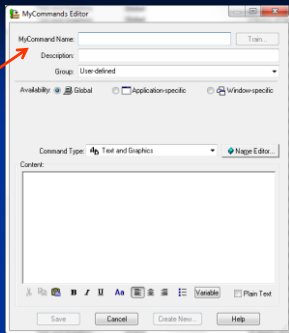


Give it a name you will remember

Text can be cut/paste into the "Content" box as well.



Next time you are dictating... just say "INSERT 'NAME'..."



UB ORTHOPAEDICS

Command Browser - MyCommands

Mode: MyCommands Help

Task Pane

- (all)
- Dragon
- Medical Normals
- Medical Templates
- Samples
- User-defined

MyCommand Name	Type	Availability
insert normal right lower extremity	Text and Graphics	Global
insert normal right shoulder	Text and Graphics	Global
insert normal right upper extremity	Text and Graphics	Global
insert normal right wrist	Text and Graphics	Global
insert normal right-hand	Text and Graphics	Global
insert normal shoulder	Text and Graphics	Global
insert normal spine	Text and Graphics	Global
insert normal thigh	Text and Graphics	Global
insert normal wrist	Text and Graphics	Global
insert numbness	Text and Graphics	Global
insert one cc kenalog	Text and Graphics	Global
insert op note	Text and Graphics	Global

UB ORTHOPAEDICS

Command Browser - MyCommands

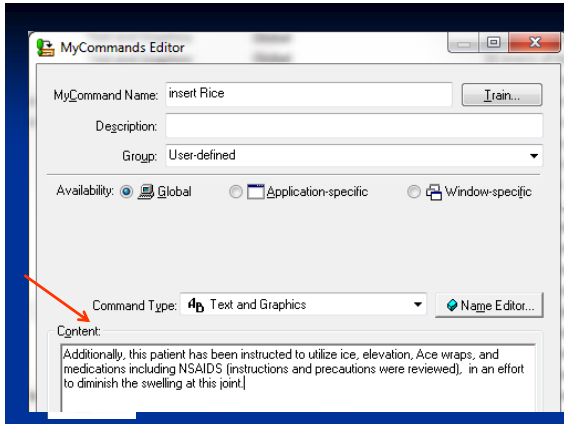
Mode: MyCommands Help

Task Pane

- (all)
- Dragon
- Medical Normals
- Medical Templates
- Samples
- User-defined

MyCommand Name	Type	Availability
insert postoperative meniscus repair exam	Text and Graphics	Global
insert postoperative meniscus repair plan	Text and Graphics	Global
insert postoperative plan	Text and Graphics	Global
insert preop note	Text and Graphics	Global
insert prison history	Text and Graphics	Global
Insert PRP	Text and Graphics	Global
Insert PRP injection	Text and Graphics	Global
insert radial head fracture plan	Text and Graphics	Global
insert referral	Text and Graphics	Global
Insert resident	Text and Graphics	Global
insert Rice	Text and Graphics	Global
insert right antalgic gait	Text and Graphics	Global
insert right boxer fracture	Text and Graphics	Global
insert right clavicle fracture	Text and Graphics	Global
insert right distal radius and ulna fracture	Text and Graphics	Global
insert right distal radius fracture	Text and Graphics	Global
insert right knee arthritis plan	Text and Graphics	Global
insert right knee mild arthritis	Text and Graphics	Global
insert right knee moderate arthritis	Text and Graphics	Global
insert right knee severe arthritis	Text and Graphics	Global
insert right metacarpal neck fracture	Text and Graphics	Global
insert right nonweightbearing gait	Text and Graphics	Global
Insert right shoulder mild impingement	Text and Graphics	Global
insert right shoulder moderate impinge...	Text and Graphics	Global


UB ORTHOPAEDICS



Effect on Work Flow ?

- Voice Commands

SAY...	TO...
Navigate	
New line	Press the Enter key once
New paragraph	Press the Enter key twice
Space bar	Press the Space Key
Tab key	Press the Tab key
Go to bottom	Move to insertion point to the end of the document
Insert before / Insert after <word or words>	Move the insertion point before or after certain text to insert text there.




Effect on Work Flow ?

- Voice Commands

SAY...	TO...
Cutting / Pasting / Deleting Text	
Copy That	Copy selected text
Cut That	Cut selected text
Paste That	Paste cut or copied text
Scratch That	Delete the last thing you said

Inserting Basic Punctuation	
Period or Full stop	.
Comma	,
Question Mark	?
Exclamation point	!
Colon	:
Semicolon	;
Hyphen	-
Dash	—
Open quote	"
Close quote	"
Open parenthesis	(
Close parenthesis)



Effect on Work Flow ?

- Voice Commands

Selecting text

Select <word or <words>	Select a particular word or words to replace, correct, or format. Example: "Select Mary had a little lamb"
Select Again	Select the same word or words again but in a different place



Formatting

Bold That	Apply bold to selected text
Italicize That	Apply italics to selected text
Underline That	Apply underlining to selected text
Restore That	Remove formatting from selected text
Cap <word> or "Cap Next <word>"	Start the next word with a capital. Example: "Cap hot Cap dog" = Hot Dog
All Caps <word>	Type the next word in all capitals. Example: "All Caps yikes" = YIKES

Other "Great" Uses for VR Software

- E-mail

- Send [an] email to <names>
- Send [an] email about <subject>
- Find an email about <text>

- Personal Letters

- Research

- Desktop Commands

- Start <application name>
- Click Start
- Shut down computer
- Search [the] computer for <words>
- Search [the] (documents/ files) for <words>

- Web Searching

- Search PubMed for <words>
- Search Google for <words>





Implementation and Utilization of Voice Recognition Software

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- True “Cost” of Transcription
- “Cost” of Voice Recognition
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- Conclusion / Demonstration / Discussion



“Cost Effectiveness” of Voice Recognition

- Initially a Decrease in Productivity
- Rapid Increase in **Productivity**
- **Decreased Turn-Around-Time (TAT)**
 - Increased Referrals / Happy PMD's
- **Better Documentation**
- **Structured data** for efficient coding / billing
- **Rapid ROI** – “Less than 6 months”



Monthly Transcription Cost and Patient Visits

Transcription Cost					Patient Visits/Month				
	2007	2008	2009	2010	2007	2008	2009	2010	
January		1,257.70	333.42	179.81		127	304	456	
February		1,780.69	208.70	708.17		141	282	394	
March		2,699.90	142.25	-		216	278	522	
April		2,845.96	42.03	2,144.72		230	310	512	
May		2,178.50	104.56	402.84		244	376	516	
June		626.08	351.91	277.85		309	384	662	
July		513.34	404.22	613.88		300	391	511	
August		-	538.72	611.65		218	361	678	
September	342.91	154.62	307.06	1,095.36	44	297	433	629	
October	1,089.55	442.22	354.56	873.46	77	313	516	630	
November	599.00	318.41	773.63	873.07	66	83	461	627	
December	974.50	282.57	283.56	164.12	61	219	472	550	
	3,005.95	12,899.99	3,844.62	7,644.93	250.00	2,897.00	4,568.00	8,717.00	
Yearly Avg	751.49	1,075.00	320.39	637.08	62.50	224.75	380.67	559.75	



Started Dragon in May 2008

Transcription Cost/ Patient

Transcription Cost/Patient Visit			
2007	2008	2009	2010
8.90	1.10	0.39	
12.63	0.74	1.80	
12.50	0.51	-	
11.50	0.14	4.19	
8.93	0.28	0.78	
2.03	0.92	0.40	
1.71	1.03	1.20	
-	1.49	0.90	
7.79	0.52	0.71	1.74
14.15	1.41	0.89	1.39
8.81	3.84	1.68	0.91
15.98	1.29	0.60	0.30
46.73	66.28	9.88	14.01
11.68	5.52	0.82	1.17



Others caught on...

But not everyone...

Non-Voice Recognition Users

Non-Dragon User	Ave Pts / Mo	Ave Cost / Mo.	Cost / Patient
Doctor A	312	\$ 2,964.43	\$ 9.57
Doctor B	197	\$ 1,795.11	\$ 9.11
Doctor C	197	\$ 1,388.69	\$ 7.05
Doctor D	224	\$ 1,401.82	\$ 6.26
Doctor E	244	\$ 1,336.04	\$ 5.48
Doctor F	424	\$ 2,176.81	\$ 5.13
Doctor G	490	\$ 2,016.35	\$ 4.69
Doctor H	196	\$ 892.99	\$ 4.56
Doctor I	178	\$ 801.42	\$ 4.51
Doctor J	162	\$ 597.60	\$ 3.68
Doctor K	663	\$ 2,384.94	\$ 3.60
Doctor L	229	\$ 800.63	\$ 3.49
Total	277	\$ 1,504.98	\$ 5.69

- My secretary is my transcriptionist, and ...
I like my secretary
- I like tape dictaphones.
- I just don't want to change... “#!&@ it!!!”
- I don't have to pay for transcription



Tried Voice Recognition - Gave Up!

Physician Who Tried Dragon - and Gave Up

	Ave Pts / Mo	Avg. Monthly Cost (Transcription)		Cost / Patient	
		Pre-Dragon	Post-Dragon	Pre-Dragon	Post-Dragon
Doctor J	226	\$ 1,162.58	\$ 1,370.21	\$ 5.33	\$ 6.19
Doctor K	181	\$ 1,735.17	\$ 1,799.25	\$ 10.06	\$ 10.23
Doctor L	418	\$ 2,117.25	\$ 1,998.38	\$ 5.25	\$ 4.71
Doctor M	416	\$ 2,289.89	\$ 2,041.04	\$ 5.62	\$ 4.96
Total:	275	\$ 1,826.23	\$ 1,802.23	\$ 6.56	\$ 6.53

- Took too much time out of my day
- Spent less than 1 month trying
- I can't type
- I don't like being tethered to my PC
- Bluetooth option?



Voice Recognition LOVERS!!

Physician Who Tried Dragon - Continued User

	Ave Pts / Mo		Avg. Monthly Cost (Transcription)		Cost / Patient		Savings/Pt
	Pre-Dragon	Post-Dragon	Pre-Dragon	Post-Dragon	Pre-Dragon	Post-Dragon	
Doctor M	113	113	\$ 1,248.11	\$ 123.42	\$ 11.08	\$ 1.10	\$ 9.98
Doctor H	200	493	\$ 1,579.17	\$ 481.65	\$ 7.91	\$ 0.98	\$ 6.93
Doctor O	178	479	\$1,291.83	\$ 955.08	\$ 7.27	\$ 2.00	\$ 5.27
Doctor P	498	498	\$ 2,896.06	\$ 359.40	\$ 5.82	\$ 0.72	\$ 5.10
Doctor Q	434	434	\$ 2,462.54	\$ 446.25	\$ 5.68	\$ 1.03	\$ 4.65
Doctor R	145	145	\$ 1,220.52	\$ 594.53	\$ 8.44	\$ 4.11	\$ 4.33
Doctor S	622	622	\$ 2,566.67	\$ 329.33	\$ 4.12	\$ 0.53	\$ 3.59
Doctor T	208	208	\$ 851.48	\$ 110.3333	\$ 4.09	\$ 0.53	\$ 3.56
Total		374	\$ 1,764.55	\$ 425.00	\$ 6.80	\$ 1.37	\$ 5.43
							Savings / Month / Pt \$ 5.43
							Total Monthly Savings \$ 2,038.49

- I don't understand why everyone isn't using it??
- "Show me the money !!"
- I get home earlier and bring less home at night
- It goes right to my bottom line!!!



Savings Champion !!

Physician Who Tried Dragon - Continued User

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	Pre-Dragon	Post-Dragon	Pre-Dragon	Post-Dragon	Pre-Dragon	Post-Dragon	
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Conclusion / Discussion

- Don't expect it to “reap dividends” from day one
- It takes time to learn the system; and time to see how it will fit into your own “work-flow”
- It is flexible
- It can be for EVERY note



Don't Fear the DRAGON....



Fear your TRANSCRIPTIONIST



Demonstration

Dragon Software
MEDENT



Thank You For Your
Time And Attention.



UBORTHOCOM
