

## Electronic Notes and Diaries

### Jeremy Allen

#### Background

- A qualified osteopath since 2007 but prior to that he was working in finance.
- Graduated from the British School of Osteopathy.
- Works full time with TM3 managing their clinic diary software and clinic note software and has been doing since 2011.
- His work consists of helping businesses to understand how to use TM3 as well as make sure this service works within different practices.

#### The data industry

- There has been a large increase in the number of businesses providing an online service which is due to how the advancement in computing software has led more companies and other businesses to rely heavily on online or automated programs to protect and manage their data.

#### Big Data

- This is the combination of the storage of information and a person's own interaction with the internet.
- In 2003 a scientist discovered the amount of recorded data that existed online consisted of 5 exabytes - the equivalent to 5 billion CDs.
- In 2011 this was being produced every 10 minutes, showing the increased reliance on the internet and the depth to which data is now being rapidly produced.

#### TM3

- This is the market leader in data management for a business.
- This service can be used for all manner of medical professionals like osteopaths, chiropractors, physiotherapists, podiatrists, sports therapists and talk therapies.
- Physiotherapists tend to be busier with their workload so something that is clear and automated would make their job easier hence why they are more keen for this method than that of a paper diary.
- In the last 5 to 10 years the uptake for this automated service has been large.

#### TM3 clients

- TM3 has worked with Physio First, The College of Chiropractors and the Institute of Osteopathy on certain projects and have many partnerships in collating data.
- Also the company responsible for TM3 have worked with Nuffield and Axa with regard to online security and data handling.
- TM3 has worked with the British School of Osteopathy and they see approximately 600 appointments and patients a week across each of their clinics around the UK.
- TM3 has partnerships with a number of exercise prescription software including Salaso, Physiotec, Physiotools and Exercise Prescriber.

### **Resistance to TM3**

- Some negativity toward this product is mainly due to the fear of using a product they are unfamiliar with or relying completely on an automated system.
- People do not believe that relying on something completely embedded in technology can be the safest possible way to secure their patients' records and their own files.
- People can be quick to assume you are not a good practitioner based on the number of slots you have available when someone is booking in online.
- Typing case notes on a laptop instead of a notepad can be seen as rude to the patient as well as anti-social which can draw the patient away from your preferred style of practice.

### **The benefits of TM3**

- The automated system is clearer and more accessible than that of a paper and filing cabinet system, as the files stored on TM3 do not deteriorate over time and do not need constantly moving to alleviate space in an area.
- There are back-ups of the data stored on the TM3 service, so unlike paper notes, if there is a fire or any unforeseen damage inflicted on those notes then it would be disastrous for that practitioner whereas using an online system that risk does not apply.
- Cheaper than relying on a paper system or using an offsite storage system as TM3 takes away the costs of travelling to that third party and collecting any files.
- No need for multiple paper diaries as this method serves to encompass all the paperwork that is related to the osteopathy field.
- Great flexibility in an online system so, for example, moving offices would not be as problematic as if you relied on a paper-only method of reporting.
- A larger panoramic of all patients and the times that you can fit them in to treatment.
- Consultations with patients less taxing for the practitioner - the system takes most of the responsibilities in setting dates, making appointments, making notes more readable and more accurate.

### **Securing data**

- Using a laptop or a set of memory sticks to store files securely ensures a limited threat from online hacking, but is highly susceptible to theft and damage.
- Storing data with a third party who specialises in storing and managing data means no chance that any data placed on system will be damaged on your premises. Some vulnerability to online attacks due to transfer of files over the internet.
- Strong passwords are useful in preventing people in office accessing confidential files, but portable devices still vulnerable to theft or damage.

### **Features of TM3**

- The system is large enough that errors are not necessarily a hazard when writing up reports as unlike when you make a mistake using a paper method which could be hard to interpret if you repeatedly make the same mistake over and over in a report.
- On the interface there are myriad buttons that can take you back to particular dates, which is very easy to use.
- The interface is approachable and user-friendly: all the options and directories on screen are bright and vivid making them easy to identify.
- There is no issue with misfiling due to how TM3 uses unique identifiers, making it easier to find any patients that they are looking for.

- All the necessary forms, appointment structure invoices, receipts, account summaries for patients and payment method options are already placed onto the system due to the databases compatibility with insurance companies' requirements.
- The appointments have a clear tick over them so the user knows what times are free and what times are booked.
- You can also choose to print receipts or email receipts and invoices directly from the record and can choose to add other items the system as well.
- Easy to change appointment times and the opening and closing hours in your clinic as it only requires changing the times on the appointment list.
- You can always override the system to allow appointments and patients time during time you would normally not be working – although this sends you a message indicating it is not working hours.
- The system saves your progress every 30 seconds.
- Typing a technical term like MRI can draw up a date and even a time of when that person is required to go for a scan.
- There is a full audit function that can be applied to all information added to the case histories as well as any information presented in the database.

### **Texting Patients**

- Reminders can be placed in order to tell the patient when their appointment is or if they are due for a check up – which can be done through automated text message. This costs 10 pence per message on the system but is cheaper than missed appointments.
- A clinic in central London implemented this technique and found it highly effective at reducing DNAs.

### **Emailing patients**

- Patients can also be sent reminders via email, but this is not as effective as a text message as it requires internet access. Patients are also likely to change email addresses more often than they would a phone number.
- This option is free, however.

### **Database user security**

- User clearance levels can be set on the system to determine the extent of their access to different types of information.
- Associates are likely to be given access to only their own diary, whereas receptionists will need access to all diaries. Principals will need access to accounts and statistics.
- The extent to which a patient booking online can see empty appointment slots can also be set.

### **Implementation Process**

- TM3 uses a client-focused team in Belfast that helps in getting the right software to the right clinics.
- There are also tips and pointers scattered across the database so you can be sure not to forget what each option or button does.

### **Treatment Under Insurance**

- Where payment is made through insurance the database has a dropdown menu displaying the number of remaining treatments.

## Payment management

- In the database there is no physical transaction of cash unless that is the payment option selected, instead what is sent is an invoice that is sent to your chosen insurance companies account to be paid at a later date.
- The system will also allow you to view the amount of money that should have been generated that day through a button labelled 'summaries' and that can give you the amount earned over various date ranges, locations and practitioners on your system.
- You can also review payments from specific patients and what type of payment options have been selected over a particular date in the form of a graph.

## Support

- Direct phone line to the TM3 support team in Belfast.
- Live chat with a support members who answers' your questions in a concise and quick manner - a very cheap method of obtaining support.
- **zgether** is a knowledge-based community and training support method that is a very self-help based approach to dealing with problems due to its use of video clips and screen grabs.
- TM3 also offers a 24/7 virtual reception service for booking.

## Online booking

- An easy, convenient way for patients to book appointments
- Clinic staff specify what times are available.
- Users booking online can only see the appointments that you wish to display.
- Optionally, a fee can be taken for first appointments, or booking in general, to prevent DNAs.
- Patients can be sent personal data forms if required.

## Note-taking

- Different styles of note taking can be implemented using this system, eg SOAP notes, vindicator or thread notes. Depends on the individual who is writing them and the familiarity with particular systems. Templates are flexible.
- TM3 offer a service to help with using the system. They can also address outcome measures and clinical reporting.
- Software can be used meet various reporting requirements (eg Bupa) and clinic audit needs.
- Notes that would have been taken may not necessarily match what you are trying to find out and a lot of notes about a patient could be made redundant by the fact that once you learn more information about a person's injury the speculation part of the note taking will again be redundant.
- Electronic notes are, by design, legible.
- Uptake is 100% quicker due to the idea that this is a visual form of note-taking which is an amalgamation of various techniques osteopaths have been using for years.

## Consent forms

- Requirements may vary in relation to electronic records. – need to check with professional body.
- Consent forms can be scanned into the system however.
- Paper consent forms may still be the best option.

## **Uploading paper notes to an electronic system**

- This can take a very long time depending on how many notes have accumulated over the years which would be a huge undertaking if you wanted to convert all those notes on to the electronic database.
- Although patients who are new to your clinic will be added to the system so there won't be any paperwork necessary for them.

## **The prototype**

- This begins by taking all the key information from the patient like their date of birth, their name and other information similar to it, and then the problem that person is facing is stencilled onto the interface to show a clear representation as to where the injury is located and what could cause such an injury.
- There are different tools that are useful in showing how people who are on hold or waiting for a referral are separated from the roster of patients to add more clarity to the service.
- You can flag ideas or important notes about patients so these points are ever present in your notes.
- Flagging ideas can move around a whole list of points if you are discussing the tests the patient has completed like 'standard depression questions' and so on.
- The admission section of the prototype can be fully customised with details concerning referral dates and admission dates also.
- Templates can be pre-populated making the interface smoother and easier to use for both patients and practitioners.
- This is in beta but will be releasing in early 2017.

## **VAS scores**

- The visual analogue scale is a psychometric response scale which easily adaptable to questionnaires.
- It records subjective characteristics or attitudes that cannot be directly measured.

## **Dictation**

- This depends on the type of hardware and software you are currently using as some platforms may be unable to run such a program.
- Mac Books are a useful tool in this process as they have dictation software that stems from the 'Siri' software.
- Some software is fairly limited like 'Dragon' as you have to train and code some parts of the software yourself to get it to understand what you are usually saying.
- It can be quicker than writing as the patient can talk directly to the software although any dictation software has an accuracy problem.

## **Medication**

- There is a drop down options for commonly prescribed drugs for patients so the spelling and the accuracy of the prescription are in no way affected and the accuracy of the database still holds strong.

## **Goals and scores**

- These can be set and changed when either the user feels like so there is that feel of flexibility and freedom with playing with information concerning patients.
- This can be added via a graph which can be a simple line or a doughnut graph.

### **Case history sheets**

- The user is able to draw on the case history sheet and add pictures and diagrams.
- Can warp and shape the pictures to make them more relevant to the patient
- Can crop out any parts of the image that are not relevant.
- Lots of content in this part of the software which adds to the overall flexibility of the product.
- Can add 'flags' to the diagrams so you can highlight different parts of the image and to the case history itself.

### **Shortcuts/Abbreviations**

- At the moment the shortcuts are Maitland's symbols, which centre around physiotherapy – more shortcuts will be added to the product which is less specific so they are more relevant to all medical areas.
- Abbreviations cannot be understood by the database however can be understood by the user. Therefore down to user preference.

### **Summary section**

- Contains images combined with goals – but can be any other information the user deems important.
- A highlight feature places more important information about a patient at the top of the page.

### **Price**

- The cost of TM3 is about **£79** per month but the cost may increase depending on the size of the practice - calculated by number of practitioners who are licensed.

### **Computers4life.co.uk**

- Rents brand new computers out to businesses and practices all for £30 a month for basic computers to £50 a month for top of the line equipment.
- Servicing and protection is guaranteed and is covered by the monthly price.

### **App**

- There could be an app based on TM3 in theory, but it would require a large enough surface on a device to make use of the different functions in the database.

### **Off-site answering service**

- The system may incorporate third-party answering services but it would need to be worked into the databases core functions.