



**DAWN Clinical
Software Regional
User Workshop
(London)**

**Tuesday 21st February
2017**



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The workshop saw a wide spectrum of DAWN users in attendance, including nurses, consultants and administrators from Rheumatology, Dermatology, Gastroenterology and Neurology.

The morning session comprised of three customer presentations, a discussion forum and DAWN product developments, while the afternoon involved training sessions on a number of topics.

- **Working with DAWN: person or system?**
Diane Home, West Middlesex Hospital, Middlesex
- **Using technology to support patients with long term conditions**
Colin Beevor, Queen Alexandra Hospital, Portsmouth
- **Immunosuppressants in Gastroenterology**
Patsy Daly, Great Western Hospital, Swindon
- **Discussion Forum**
The challenges of new drugs and monitoring patients
Safety benefits of DAWN software
Key challenges your service will face over the next 5 years
- **Improvements and Developments in DAWN**
Alistair Stewart, 4S DAWN Clinical Software
- **DAWN Training Sessions**
Reporting on your patient population
Using questionnaires within DAWN
Email and SMS/text messaging in DAWN
Flagging test results

Working with DAWN - Person or System

Diane Home, Rheumatology Consultant Nurse, West Middlesex University Hospital (WMUH)

The rheumatology department at WMUH is based to the west of London covering a population of 400,000 and with two main CCGs, Hounslow and Richmond. The service has three rheumatologists, one consultant nurse and one specialist nurse.

WMUH started using DAWN in 2002 and upgraded to Version 7 in 2012. They currently have 1,195 active patients on their DAWN RH system.

Diane Home reviewed several aspects of the way DAWN is used at WMUH including day-to-day management of patients who do not attend for blood tests.

Managing non-attendance for blood tests

Within the DAWN system, monitoring intervals are set based on the treatment and a 'grace period' determines when the system flags the patient up as a non-attender. This grace period could range from 5 to 28 days depending on the monitoring period which could be 7 days to 3 months.

Example monitoring interval and grace period

Monitoring Interval	Grace period
0-7 days	5 days
7-14 days	7 days
15-28 days	10 days
29 days to 3 months	28 days

From a safety perspective, WMUH wanted to catch people earlier who had missed their blood tests. As such, they have now set up a non-attendance monitoring interval within DAWN of 5 days so that regardless of the patient's treatment monitoring interval, the DAWN system will now flag them on the non-attendance list after 5 days of their bloods

being due. This ensures prompt communication with the patient to remind them that they have yet to have their bloods taken.

A new 'fixed non-attendance' list view has been added to the system that shows all non-attenders after 5 days and this list is managed by using the clinic filter to split the list so that individual members of the team can see which of their patients are flagged as non-attenders.

The list is checked and a first reminder letter is sent out to the patient. Sometimes the patient is called by telephone for the first reminder depending on the circumstances. After two weeks, if the patient is still on the non-attenders list, a second reminder letter is sent out to the patient as well as their GP. After a further two weeks, a STOP letter is sent out and the patient receives no more prescriptions until they have had a blood test.

Quick notes section on patient screen

Therapy RH - Standard DMARD
12 weekly MTX schedule template

Ref. Range (None selected)

Treatment Plan 1 of 1 active

Risks

RF <20; Anti CCP: 0.7
for MTX (and SZP - not given SZP prescription)

WMUH - Fitzgerald Jennifer 01/02/2017 12:12
overdue 1 sent
DR OPA 13/07

WMUH - Fitzgerald Jennifer 01/11/2016 12:44
missed appt letter sent
Dr OPA 12/01/17

WMUH - Hawkins Caroline 23/06/2016 09:28
CNS opa booked 1/11/16, sent with letter advising bloods
next due week ending 12/8/16

WMUH - Hawkins Caroline 19/05/2016 15:30
12w mon agreed by DD

WMUH - Hawkins Caroline 09/05/2016 11:04
Bloods still overdue - 2nd letter sent to pt and GP

WMUH - Hawkins Caroline 07/04/2016 11:49
DNA CNS opa - letter sent

WMUH - Hawkins Caroline 28/01/2016 09:40

The service is currently looking at setting up a text messaging service from the DAWN system to remind patients that they have missed their blood tests with the view of reducing costs, improving workflow efficiency and providing flexible options for patients to choose their communication channels.

Improved healthcare professional communication

Another area of DAWN's functionality that the service benefits from is the way the team can communicate with each other within DAWN and have visibility of what is going on. The Quick Notes section and Referrals section in DAWN is used for such communications.

The Quick Notes are used to record key information either at the time of the patient's appointment or outside of appointment times e.g. if the patient calls the advice line or there have been changes made due to test results etc. Using the quick notes means that each addition is time and date stamped along with the HCP's name so that all other team members have visibility on any important information when they access the patient record.

Referrals section on patient screen



One issue found recently was that 'referrals' within DAWN were being used for non-urgent decisions such as 'is the patient stable enough to have less monitoring?'.

Should an abnormal result be received whilst this non-urgent decision is still pending, the result appears on a list other than the usual list of 'results flagged and not referred or checked'. Two solutions to this have been identified as the use of 'Reminders' on DAWN for non-urgent discussions and the use of the new front screen tally to highlight all abnormal results even if already referred.

Referrals list view

New challenges at West Middlesex Hospital include separate workflows for

- Infusion clinics – testing at the infusion suite on a different site requires these patients to get dates set manually and the DAWN patient Risk Class is used to stream these patients with no automatic appointments so that the team can manage the patients and their appointments more effectively
- Near Patient Testing (NPT) project – as Hounslow GPs are now all signed up to NPT, the service is currently looking at ways to identify which CCG patients belong to so that the team can identify which ones are suitable. This involves querying the DAWN database to:
 - o Find active patients with no flagged WBC, platelets and ALT in the past 90 days
 - o Exclude patients on treatments not suitable for NPT
 - o Identify patients from specific practices/CCGs
- The rheumatology department are working with the gastroenterology department to investigate incidents of patients with Neutropenia associated with sulfasalazine as part of a study. This involves producing a report within the DAWN system based on a number of criteria such as the definition of neutropenia, patient diagnosis, whether the patient is on mono or combination therapy and time frame.

Diane concluded the presentation by stating that whilst DAWN is not a person SHE is definitely part of the team at WMUH!

Using technology to support patients with long-term conditions

Colin Beevor, Matron & Clinical Nurse Specialist, Queen Alexandra Hospital (QAH), Portsmouth

Colin spoke about providing support for patients prioritising self-care and the difficulties for patients to juggle

repeat appointments amongst the pressures of real life. Patients are interested in and often worried by their blood tests.

There is a need to look towards IT solutions to support patient care in the future. Systems are required not only to help patients within the healthcare setting but also to manage their own care.

The team at QAH are particularly forward thinking when it comes to IT and are always looking at solutions that will improve the delivery of care to patients.

Patients sit on the self-care spectrum where at one extreme, patients will take complete responsibility for managing their own care, whilst at the other end, patients rely entirely on the healthcare professional (HCP) to manage their care – it is important to engage with patients via IT and systems need to be considered that will help patients at either end of the spectrum.

Remote monitoring is an option to explore for stable patients (phone call / Skype) and whilst this will not completely replace face-to-face appointments it could certainly reduce unnecessary hospital visits. In addition, integration between secondary and primary care systems needs to be improved in order to facilitate consistency of advice and action from the HCP to the patient.

Patients are already engaging in healthcare through various systems, apps, websites and this is not only younger patients but across all demographics. As a result, this also leads to patients asking more questions of their HCPs in relation to their 'online learning'. However, there will still be an element of the patient population who do not wish to engage in IT.

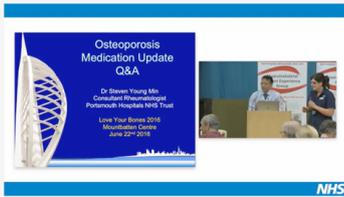
In 2015 Portsmouth CCG and Fareham & Gosport CCG carried out a survey to ask people with one or more long term conditions about the care they receive from the local NHS:

- **What are the best things about the care you receive for your long-term condition?**
 - 28 responses mentioned getting good access to consultants (including phone calls or emails, not just face to face)
 - 17 praised access to specialist nurses, both in acute and community settings
 - 13 specific references to the value of a helpline
- **What would you like to improve about the care you receive for your long-term condition?**
 - Quick access and access to specialist knowledge was mentioned along with the quality of care
 - The subject of technology was raised in a variety of ways including the need for more holistic care better information sharing between HCPs, access to results, electronic records and care plans, GPs accessing hospital notes and virtual access to doctors and nurses
 - A desire for information was a common theme – about services, conditions, treatments, drugs, allowing effective self-management
- **A further question concerning the ranking of usefulness of a variety of options saw the highest 'most useful' response received for:**
 - More information to help manage the condition yourself
 - More convenient ways to consult with your doctor (e.g. email/online)

QAH are looking at ways to engage better with patients and via more channels in order to reach patients in flexible ways. A YouTube channel provides informative and educational videos for patients to access whilst other social media channels can be used to communicate and educate through Q&A sessions etc.

The rheumatology service is also looking at setting up a multi-media room for holding virtual clinics via Skype and other communication channels.

The service are also looking at near patient testing, particularly within retail outlets such as Boots and investigating the need to get the results from these locations into the DAWN system.



Innovations in the use of IT systems to improve care will only work if everyone is behind it and wants to use it. However, whilst advances are being made in this respect, the NHS is still very paper heavy and this leads to an increase risk of losing information.

Colin referenced the importance of patient choice and future options to get tested in the most convenient way. The risks of mis-communication where patients get two differing instructions by contacting the helpline twice are real and accessibility of information at weekends is also an increasing demand.

Immunosuppressants in Gastroenterology

Patsy Daly, Gastroenterology Specialist Nurse, Great Western Hospital (GWH)

GWH serves a population of 350,000 across Swindon and Wiltshire. The DAWN system has been used within the rheumatology department for 8 years whilst the gastroenterology department went live with the DAWN system in September 2015.

Prior to the DAWN system, monitoring of gastroenterology patients was coordinated via spreadsheets.

Example of spreadsheet used prior to DAWN system

The spreadsheets were used primarily to identify patients who had blood tests due but this was a particularly lengthy process and often saw the nurses staying after work to complete the task.

With the DAWN system in place, much of the workflows within the clinic are automated and key patient groups are flagged on the system including non-attenders and patients with abnormal results, reducing much of the manual workload previously undertaken by the nurses.

Currently, IBD (Crohn's disease and Ulcerative Colitis), Autoimmune Hepatitis and Post Liver Transplant patients are managed using the DAWN software and the following medications are monitored:

- Azathioprine
- Mercaptopurine
- Methotrexate
- Ciclosporin
- Tacrolimus
- Mycophenolate
- Biologic therapies: (*Infliximab, Adalimumab, Golimumab, Vedolizumab*)

Full blood count, liver function, CRP, kidney function, thiopurine methyltransferase TPMT, Pre Biologic screening-Hep B&C EBV are monitored for all patients.

The DAWN administrator interacts directly with the system for around 25 hours per week and the specialist nurses use the system to complete daily reviews of blood results and checking pre-treatments. The system is also used

in clinic when seeing patients in order to request prescriptions and bloods. Clinicians interact with DAWN if the nurses have concerns and the test results are outside of the set parameters.

The local CCGs (Swindon and Wiltshire) have both supported the use of the DAWN gastroenterology system and all patients across both CCGs are initiated at GWH using DAWN. After 3 months, if the patient is stable, those from Wiltshire CCG are put out to the GPs for monitoring. Whilst the Swindon CCG patients continue to be monitored by GWH with the DAWN system.

In terms of moving forward with the DAWN system, the gastroenterology service is looking at the following:

- 5-aminosalicylic acid (5-ASA) patients to be added to DAWN so that their liver function can be monitored
- Adding hemochromatosis and coeliac disease patients to DAWN for monitoring
- Introducing a demographics interface from PAS to DAWN to increase safety and ensure effective communications with patients
- Setting up text messages reminders from DAWN to patients who have not had blood tests done to reduce the time spent currently chasing non-attenders

Discussion Forum

The customer presentations were followed by a discussion forum that saw delegates break into smaller groups in order to discuss and then share the outcomes of their discussions on topics including the challenges of new drugs and monitoring patients; key safety benefits of DAWN; and service challenges over the next 5 years.

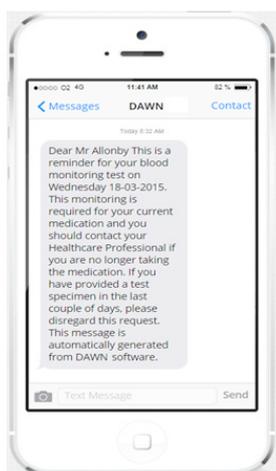
Some of the points that came out of these discussions included:

- Improved communication required between consultants and nurses when initiating patients on Biologics to ensure all relevant screening tests completed
- Potential to use a questionnaire in DAWN designed specifically for biologic initiation – increasing patient safety
- Everyone in the team needs to be committed to using DAWN
- Not having to review all results including ‘normal’ results to determine which are abnormal helps the HCP focus on what is important as ‘abnormal’ results only are flagged in the system – this is a real safety benefit
- Able to query the DAWN system to look at trends within patient population and sub groups of patients
- The safety benefits of the DAWN system increase the more you use it
- Fragmented care with different systems will prove to be more challenging in the future and integration between them will be important, particularly in managing patient expectations in relation to consistency of care and their need for information
- The role of GPs and their reluctance to monitor/manage patients on biologics could prevent shared care

Some New Developments in DAWN

Alistair Stewart, 4S DAWN Clinical Software

Timed Message



New ‘Timed Message’ functionality has been added to the DAWN. This functionality allows pre-defined messages to be sent to groups of either patients or healthcare professionals, either by email or by SMS/text message, at a pre-defined time on specific days of the week. For example, reminders to patients of blood tests due, or alerts that they have missed their blood tests, alerts to HCPs to inform them that there are patient in DAWN with abnormal results that need reviewing.

Hyperlinks from Front Screen

Hyperlinks from Front Screen Tallies to List Views. DAWN can be configured to display a set of significant tallies on the front screen.

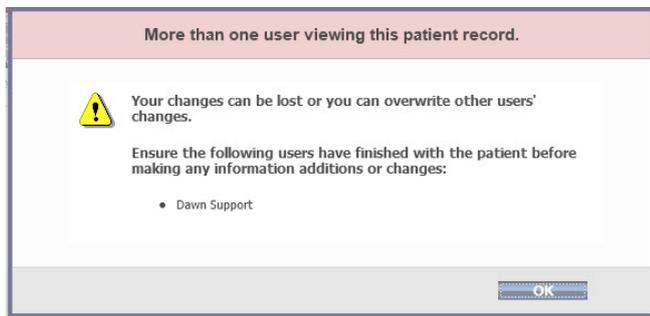
Patient Safety Checks	Count
No. of patients with abnormal results awaiting review or referral	0
No. of patients with open referrals	0
No. of patients with some missed tests	0
No. of patient records waiting to move to next appointment	0
No. of patients who have failed to attend	0
No. of patients with no next test date	0
No. of active patients with no active treatment plan	0
No. of patients due to change frequency of testing	0

Click the text to open the corresponding list view

New Password Reset Process

When you log in using the temporary password, you are immediately prompted to change your temporary password for a new one of your choosing. The new Change Your Password form is much more helpful than before.

Concurrent User Warning



DAWN will now display a Concurrent User Warning to a user when opening a patient record that is already being viewed by another DAWN user.

A popup box will be displayed showing the name of the user(s) already viewing the same patient record.

A warning banner will be displayed at the top of the patient record at all times whilst the user is on the same patient record as another user.

DAWN Training Sessions

Heather Stevenson, 4S DAWN Clinical Software

Report – count of patient status

Count of Patients	Statistic	Last month
1,620	Active today	5
0	Deceased last month	5
1	Reactivated last month	5
261	Started last month	5
45	Deactivated last month	5

A training session on the DAWN system was held in the afternoon and covered four key areas, Reporting on your patient population; DAWN questionnaires; Timed messages (email and SMS text messaging); and Flagging test results.

This provided an excellent opportunity for customers to learn more about using their DAWN system in new ways, refresh existing knowledge and ask questions about various areas of the DAWN system.

Questionnaires tab within the DAWN patient record

Questionnaire Type	Entry date	Summary
SLEDAI	10/06/2016	19 PGA score = 1
SLICC questions	17/05/2016	4 selected
SLICC - BILAG	17/05/2016	CONST. 0 MUCCOUT. 1 NEURO. 0 MSK. 2 C/S/RESP 2 G.I. 0 OPTH. 0 REN. 2 HABM
HAQ	09/02/2016	0.75
DAS 28 (all options)	17/08/2015	Das 28 result: 2.66
SLEDAI	24/06/2015	12 PGA score = 1
HAQ	05/06/2015	2.125
QRISK	05/06/2015	cardiovascular risk over 10 years: 13.0%
PHQ9	05/06/2015	Score: 9 /27
FRAAX (fracture risk)	05/06/2015	Score: Major Osteoporotic:15%Hip fracture: 7%



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