

Guide to using the Cassandra Matrix™. An activity analysis tool for the specialist nursing community

Why undertake activity analysis?

Many specialist nurses are subject to reviews by employers in an effort to justify their worth. This is either an in house activity or outsourced to a management consultancy as part of a cost improvement programme. It is usually conducted without an evidence base for the work and often based on false assumptions about what you do. It will usually be a form of time and motion study ie dairy exercises or inaccurate work sampling (write down every five minutes what you are doing).

This kind of exercise tends to oversimplify your work. As specialist nurses, you undertake a huge range of tasks every day. Recording every one of them would be an impossible task – it would take up all of your time. But being able to demonstrate to someone else how you spend your time is valuable. It can help show the complexity and specialist nature of your role (although methods such as Job Planning and the Service Summary are preferable) and help you see whether there are tasks (such as non-clinical admin) which don't need your high degree of expertise, and make the case for more support with these.

What is The Cassandra Matrix™?

Cassandra is a simple data collection tool to help you show how you spend most of your working time. It is based on a much larger and more complex database of specialist nursing activity called Pandora , which has been used by thousands of clinical nurse specialists to record their activity. Pandora recorded nine pieces of information about each event – including the length of time it took, why and how it happened, and the outcome. Using a technique called 'data clustering' to identify from Pandora the most common things that happen in specialist practice. What we learnt about the complexity of the work is now in Cassandra.

Cassandra gives you a representative picture of how you spend your time, without having to record nearly as much information. Cassandra doesn't record all your activity - just most of it. It also records the activity most associated with either income or savings if you work in an acute NHS Trust.

Cassandra will represent your work accurately provided that you each record about 70-100 hours of work. This will give a picture of what you do most of the time. Despite what it might say in job descriptions most specialists nurses don't spend a lot of time doing research, formally teaching and in management. If you spend large chunks of time teaching, researching or managing subtract that time and record it separately.

How to collect data.

On the www.apollonursingresource.com you will find the Cassandra Matrix waiting for you to input your data. Most people find it easiest to take around a data collection sheet each day and tick things off as they go along. You can download this data collection table using the “print table” button in the Cassandra app.

To get a reasonable picture of your activity you will need to collect 70-100 hours of work. You can do this in days or hours over a number of weeks. For example you could record a couple of weeks work or you could record half days, different days of the week etc. until 70 hours is reached.

70 hours is the minimum you can collect and it should be a representative spread of your work (for example, do not collect data only on Tuesdays unless you only work one day per week).

Cassandra captures what nurses do (interventions) and where they happen (contexts). Each time you perform interventions simply tick the box according to what interventions you provided and where. For example symptom control in outpatients. At the end of the day, add up the scores and transfer them to your personal spreadsheet on the website.

They should be reasonably typical weeks (e.g. not the week between Christmas and New Year).

If you have days dedicated to research or formal teaching (which are not recorded by Cassandra) then just leave these days out.

The spreadsheet for each individual nurse has some basic automatic analysis in it already, which you can see straightaway.

How do I see my data?

You will be able to see the totals as you input them.

When you have input the 70-100 hours' worth of data from your sheets simply press the generate report page.

You will see a number of pie charts and graphs that show you how you spend your time.

Frequently Asked Questions

How do I know what boxes to tick?

Cassandra captures what nurses do (interventions) and where they happen (contexts) to form a sample of work. You need to tick a box each time you perform an intervention this means for most people that each patient encounter will consist of several interventions.

The interventions are grouped into five main types:

1. Physical interventions
2. Psychological interventions
3. Social interventions
4. Case management
5. Administration

Based on the Pandora dataset we know that, when averaged out over many occurrences, each intervention type typically takes around the same amount of time. Therefore by analysing enough interventions, you can demonstrate how you divide your time over a typical year.

Here are some of the Interventions and explanations from the literature-if you would like to know more please contact us using the form on the Apollo website.

Physical assessment This refers to physical assessments-be sure to think about the assessments you do-they might be generalist or specialist e.g. undertaking an assessment requiring specialist expertise for example in rheumatology this would include joint assessments and specialist scoring.

Symptom control – generalist This refers to general symptom management not requiring specialist expertise – for example if a patient asked you to advise on a problem not related to your specialism.

Symptom control - specialist Giving advice on symptoms or treating (including prescribing or recommending medicines) requiring specialist expertise e.g. in Multiple Sclerosis related pain.

Requesting investigations e.g. bloods, urine tests, radiology

Performing procedures e.g. carrying out a bladder scan, infusions, joint aspirations, siting a stoma-it is also worth making a list of your specialist procedures for your service summary or annual report.

Rescue work “Rescue work” is based on Silber et al’s (1992) work, which explored what would happen if a situation was not rescued. In this situation it refers to an intervention where a specialist nurse intervenes to prevent a situation deteriorating further perhaps leading to avoidable harm or to unscheduled care. The issue which resulted in the rescue work can be a deterioration of physical symptoms, a medicines issue or an iatrogenic problem (an adverse consequence resulting from a medical intervention) for example you might pick up the early signs of a chest infection or see something is incorrectly prescribed or not prescribed at all. Nurses use vigilance all the time to perform rescue work.

Promoting self-management These are the interventions you might use such as health promotion and education which lead to eventual self-management by patients and carers

Psychological Assessment refers to the assessments offered at NICE level 2. These are generally the interventions listed below such as active listening, helping to meaning-make or address issues of biographical disruption (loss of identity for example) this might also include a referral for more intensive interventions ie a psychologist or counsellor.

Anxiety management for most specialist nurses this is creating a safe space to explore fears and anxieties in relation to the illness or specialism.

Supporting clinical choice and meeting information needs Assessing & meeting information needs using specialist knowledge of the group, exploring choices for example product choices or drug therapy

Psychological rescue work See ‘rescue work’ above. Anxiety rescue work might arise where a patient had been given mis-information or no information or rescue work as a result of the specialism is altered body image.

Dealing with distress The distress caused by the condition or its consequences

Communicating significant news This could include news about diagnosis, progression of disease etc.

Social assessment An assessment of the patients social situation

Mediation of relationships This is the process of adaption to often long term illness where the specialist nurse might negotiate or talk to relatives/significant others-could include supporting family carers in their response to their family member.

Advice (social) Any kind of social advice including housing/financial/benefits This could include completing forms for patients.

Referral e.g. OT, physio, SALT, dietician, tissue viability, continence, orthotics/podiatry, any medical consultant including GP, health visitors/community nurses, nursing/care home, pain team, maternity services/midwife, neurophysiology, audiology, ophthalmology, sexual dysfunction, psychologist, psychiatrist, CPN or for counselling / relationship counselling / talking therapies. Safeguarding, workplace/employer, educational are some examples.

Advocacy/Brokering is where you might negotiate or speak up for a patient. This might be in an MDT meeting or ward round for example if you are aware of patients thoughts on a particular area such as chemotherapy. The brokering aspect is when you negotiate appropriate or faster care for example negotiating a CT scan or other clinical care such as a referral to a new consultant.

Non clinical admin e.g. booking an outpatient appointment, answering the phone and taking a message for someone else, typing letters, chasing routine results, preparing clinic notes-in other words admin work a lower band worker could do

Clinical admin e.g. dictating a letter to a GP, checking blood results in other words admin work that a clinician has to do

The contexts

The contexts are the most common places where specialists work– or where work arises from.

The ones listed in this version of Cassandra are

- Inpatient
- Outpatient new
- Outpatient follow up
- Paper/virtual clinic/MDT meeting
- Telephone clinic/response
- Specialist area (you can define this for example endoscopy)
- Community

We can add more if there are other settings where you regularly work and want to record. If you want to add an additional context, let us know.

There is no 'office' context. If you do something in the office, you still need to tick the sheet – but put it under the context where the activity arose from.

Tips on completing the boxes

- The more detail you can collect the better - for example if you are recording a clinical encounter you may do five or six things within it - make sure they are all recorded.
- Don't worry about whether each intervention takes a little time or a lot – that is all taken care of in the database which underpins Cassandra.
- If you do the same thing multiple times for the same patient within the same consultation, only tick each box a maximum of one time. For example, even though you might do three 'specialist physical assessments', looking at spasticity, skin tone and continence, just tick the box once.
- Sometimes it will be difficult to know exactly which box to tick, but don't spend much time worrying about it – just use your best judgement. The following examples may help.

In 2013 Cassandra was used by some Multiple Sclerosis specialist nurses to look at their activity you might find these examples useful in terms of recording yours. These examples were put together for the GEMMS project by Amy Bowen and Geraldine Mynors.

Example 1 Helen receives a call from a patient who thinks she may be having a relapse of her MS. This is what she does, and what she ticks – all in the context 'telephone':

Tasks done on the call	Boxes ticked Intervention (row)	Context (column)
Finds out from the patient what her symptoms are, listens carefully and makes a judgement	Physical assessment – specialist	Telephone
Recommends that the patient comes up to a nurse led clinic so that her symptoms can be assessed and care given	Rescue work	Telephone
Gives the patient some advice over the phone on how to recognise a true relapse and how some infections can be mistaken for relapses.	Supporting clinical choice and meeting information needs Manages anxiety	Telephone
Advises the patient on how to manage her symptoms until her clinic appointment	Symptom control - specialist	Telephone
Tries to put the patient through to clinic appointments, but as they are constantly engaged, makes the appointment on the PAS system herself	Admin – non clinical	Telephone
Writes about the phonecall and the plan of action in the patient's notes	Admin - clinical	Telephone (originated by clinical phone call)

Example 2

Miriam undertakes a home visit and finds the patient not coping well at home. His partner is overstretched and depressed, and it is clear that some respite care is needed. This is what she does, and what she ticks – all in the context ‘community’ & “telephone”:

Tasks done on the call	Boxes ticked intervention (row)	Context (column)
Assesses the patient’s physical symptoms	Physical assessment – specialist	Community
Listens to the patient’s anxiety about how difficult things are at home, and also the carer’s concerns.	Psychological assessment Dealing with distress	Community
Advices on some possible options for respite care	Advice (social) Manages anxiety	Community
Back at the office, telephones a respite centre to see whether they would be able to take the patient for a few days	Referral (social)	Telephone
Calls the patient’s carer back to explain what is on offer and how the respite care would work, jointly makes a decision on how to proceed.	Supporting clinical choice and meeting information needs.	Telephone
Calls the care home back to confirm the arrangements	Admin - clinical	Telephone
Calls patient transport to arrange the transfer	Admin – non clinical	Telephone
Phones the patient’s GP to explain what has happened and ask the GP to follow up	Admin – clinical	Telephone
Writes to the patient’s GP to confirm the plan of action	Admin - clinical	Community (originated in community)

Further reading

If you are interested in finding out more about the work which underpins Cassandra, the following are useful publications:

Nursing Standard, Leary: [Proving your worth](#)

ICN (2002). [Definition of Advanced Practice](#)

Meyer, G. & Lavin, M. [Vigilance \(2005\): The essence of nursing](#). Online Journal of Nursing 10(30).

Health Foundation [reviews of self management](#), including [People Help Themselves](#)

Oliver S, Leary A (2012). [Return on Investment – Workload, value and complexity of the CNS](#). *British Journal of Nursing* 21(1): 32-37.

There are also papers on [Alison Leary’s website](#)

Or contact us through the Apollo website

www.apollonursingresource.com

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