The role of Evidence Based Medicine when managing the delirious patient

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One of the cornerstones of modern medical education is Evidence Based Medicine. It is a concept we are introduced to early in Medical School, and one that will follow us all through our careers. As senior clinicians we will use it to guide our practice and improve patient care. What is the role of Evidence Based Medicine in the junior doctor's practice? The majority of the time, as an intern or resident, our role is to facilitate the plans of those senior to us – we possess the knowledge, yet rarely are we the ones calling the shots. Perhaps it is only after hours that we really have a role in applying the knowledge we so diligently learned as students.

Managing delirium using evidence-based medicine

The call to review an agitated, delirious patient is one that all junior doctors are familiar with – it is the most dreaded of after-hours reviews.

There is a lot of evidence for delirium management. Evidence Based Medicine teaching tells us that we should use good evidence to support our clinical management. And we do, except for when we don't. When it comes to delirium, we are not always great at following the evidence.

Delirium is an acute, fluctuating change in mental status, with inattention, disorganised thinking and altered levels of consciousness.

Here is what we know:

- **Delirium leads to increased mortality. It is important to not only recognise, but to treat [1].**
- **Up to 10% of patients over 70 years of age will exhibit symptoms of delirium at the time of admission to hospital, and a further 8% will develop these during their admission [1]. Delirium is multifactorial – the list of causes is long.**

Causes and fixes for delirium

The important thing to know is that many of the causes of delirium are preventable, as well as reversible. It is our job to recognise and reverse any of these causes. While fixing delirium overnight is not realistic, we can go a long way to identifying causes and putting in a plan for the next day.

Delirium prevention and management involves things such as increased nursing, frequent re-orientation, good sleep hygiene, and managing constipation [5]. We often end up walking the fine line between treating medical problems, whilst using the least invasive methods possible (e.g. to insert an IDC or not).

The management of delirium is not sexy – treating constipation or a UTI may not be glamorous. The primary management of delirium falls into that dreaded category of 'non-pharmacological', meaning we cannot just chart something then walk away. Herein lies the problem. How do we know that non-pharmacological measures work? The literature. There is even a meta-analysis out there [4] (the holy grail of Evidence Based Medicine). One of these meta-analyses showed that the use of non-pharmacological interventions resulted in significant reductions in not only delirium incidence (up to 44%), but also in falls and length of stay.

How to assess and diagnose a delirious patient

We are all time poor after hours, shifts are busy and we are by-and-large being pulled from all directions. Reviewing a patient with delirium takes time. But it is time worth giving.

The initial assessment of the confused patient needs to involve an assessment for delirium. The nursing staff on the ward may already be documenting a CAM (Confusion Assessment Method) score for the patient. DSM-5 also provides very simple, clear criteria for the diagnosis of delirium.

If you think the patient has delirium the next step is to try and work out why. Do they have an infection? Are they in pain? Are they constipated? Have they recently undergone a surgical procedure? By assessing the cause of the delirium you may be able to put a plan in action to start reversing some of the causes.

The reason you were likely called is because the nursing staff were worried the patient was agitated and difficult to manage on the ward. Simple non-pharmacological measures are known to help here: spending time with the patient (do they need individual nursing?), putting on their glasses, finding their hearing aids. Calling in family can be appropriate at times.

It is important to assess whether or not the patient is at risk of self-harm. Patients with delirium are at a high risk of falling – do they need to be moved near the nurse's station or nursed in a bed lower to the ground?

If you are concerned that the patient is not settling despite these measures it would be appropriate to talk to your registrar and consider a low dose anti-psychotic (there is evidence for the use of haloperidol as first line if symptoms do not settle despite non-pharmacological interventions [3]. Olanzapine and risperidone are other options). It is always important to remember that no drug that is prescribed is without side effects – pharmacological agents should only be prescribed when appropriate.

What about benzodiazepines?

We know that benzodiazepines can cause delirium, make delirium worse and can prolong the duration of delirium, yet we still prescribe them [2]. We know that benzodiazepines such as midazolam should not be used to manage agitated patients on the ward [6,7]. What about temazepam in the restless patient who cannot sleep?

Prescribing these drugs over the phone seems innocuous, but can have profound effects on our patients. It is important that after hours we are not only managing delirium, but making sure we prevent it.

Many junior doctors (including myself) have felt pressure to prescribe medication after hours. We have all been asked to chart temazepam for patients struggling to sleep on a busy, noisy ward. Should we be charting this? In patients who are at high risk of delirium, probably not.

Again, there is evidence to back this up. Patients at high risk of developing delirium are those over the age of 65, those with dementia, those with hip fractures, sensory impairment or severe illness [1]. These are the patients that we should avoid prescribing 'sleepers' in. Unless the patient has been on long term benzodiazepines at home, caution should be used when commencing these as an inpatient. Of course, it is not as simple as saying 'don't prescribe benzos'. It takes much less time to chart temazepam than it does to explain to a patient why you won't be giving them something to help them sleep. In my experience, most patients do respond well to a simple explanation of your reasoning. Advocating for your patient is always the right thing to do.

Documenting what worked

The treating team the next morning won't praise you for your superior diagnostic ability at having diagnosed their patient as delirious. What they may thank you for is taking a few minutes to write a brief issues list. Make sure you document what non-pharmacological measures worked. Was it having a loved one sit by their bed? Was it sitting near the nurse's station? Was their IDC not draining properly? This is not cutting edge medicine, but we know it works.

We need to empower ourselves with the evidence available. It is not enough to briefly review the patient, prescribe medication and walk away. You would not manage the hypoxic patient or the patient with chest pain in the same way. We should all have a system or framework in mind when it comes to managing agitation and confusion. We should all be following the evidence.

This is the time to really advocate for our patients. As our inpatient population ages, delirium on our wards will become more prevalent. The quicker we recognise it and the better we manage it, the better the outcomes for our patients.

You get to walk away from your shift knowing that you didn't just put a band-aid on the problem – you helped solve it.

The evidence is all there. Now is your chance to use it.

References

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