



AMA(SA) EPAS
QUESTIONNAIRE 2017



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• AMA(SA) President, Associate Professor William Tam on 0419 938 668	12
• Jane Ford AMA(SA) Policy and Communications Consultant on 0414539542	12
• Claudia Baccanello, AMA(SA) on 08 8361 0109	12

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EPAS STILL FAILING AFTER FOUR YEARS

The Enterprise Patient Administration System (EPAS) is affecting patient care and safety and reducing productivity in South Australian hospitals – even for experienced, long term users, a questionnaire of users has found. The questionnaire of more than 200 medical staff conducted by the Australian Medical Association (South Australia) [AMA (SA)] highlights a range of ongoing problems with the system including a very slow login process, being unintuitive to use and unrelated to efficient clinical workflow. Many staff have also cited problems with the way EPAS interacts with the prescription and pathology systems. The questionnaire adds weight to ongoing claims that the system is difficult to use.

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1. EPAS QUESTIONNAIRE SITES

EPAS was introduced at a range of sites from 2013, with the promise of delivering better patient treatment by enabling patient information to be shared. It aimed to provide a fully integrated and accessible electronic patient health record, and improve the way we deliver care and improve patient experience and safety.

Table 1 EPAS sites

Answer Choices	Responses	
Port Augusta Hospital	11.20%	27
Noarlunga Hospital	31.54%	76
The Repatriation General Hospital	30.71%	74
The Queen Elizabeth Hospital	43.98%	106
Noarlunga GP Plus Super Clinic or Aldinga/Seaford GP Plus	0.83%	2
SA Ambulance Headquarters	1.24%	3
Flinders Medical Centre (view only access in selected areas)	6.64%	16
	Answered	241
	Skipped	7

Table 2 Staff categorisation

Answer Choices	Responses	
Medical practitioner - salaried specialist	49.38%	120
Medical practitioner - visiting medical specialist	15.23%	37
Medical practitioner - junior medical officer/doctor-in-training	21.81%	53
Nurse	1.23%	3
Medical student	8.64%	21
Other	3.70%	9
Other (please specify)		16
	Answered	243
	Skipped	5

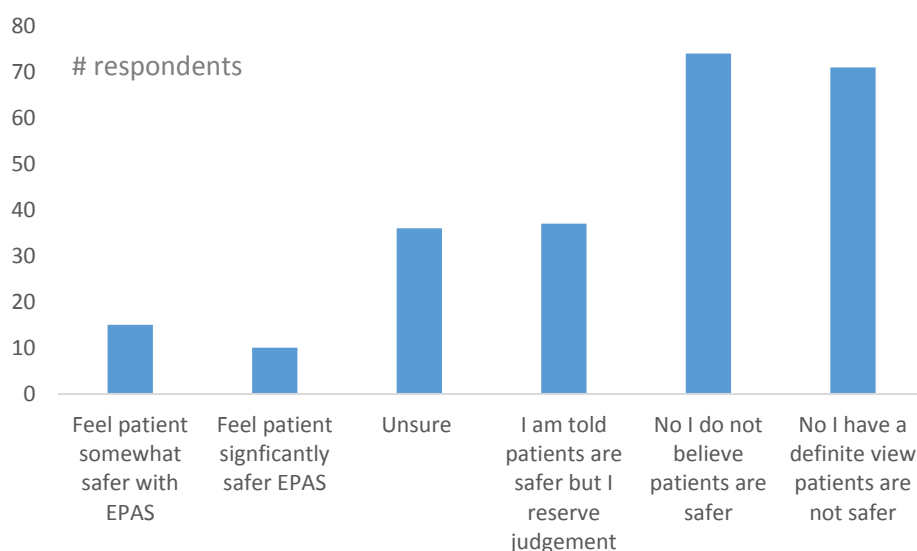
Most respondents have been using EPAS for a significant amount of time — 30 per cent have used it for more than two years, while another 13 per cent have used it for 1-2 years and 27 per cent have used it for 6-12 months.

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2. CLINICAL SAFETY

Significantly, the AMA(SA) questionnaire finds that of the 248 respondents, over 30 per cent say they **believe patients are not clinically safer since the system was introduced**, and nearly the same proportion say they **have a definite view that patients are not safer**. (With similar findings for those using the system for more than two years - 30% and 37% respectively).

Figure 1 Staff beliefs about clinical safety since EPAS was introduced



While EPAS technicians have implemented a process to enable clinicians to request changes to the system, medical staff report this has yet to have produced significant improvements. “It has improved significantly since introduction but is still a pig with lipstick”, says one respondent.

These comments are indicative of concerns:

[It is] very easy to write in the wrong patient’s notes.

Commonly I have seen drugs (e.g. paracetamol) given more frequently and with shorter interval than prescribed. For example two separate orders one for IV and one for oral paracetamol, and both given, leading to overdose of the drug.

Missed medication doses as above. Altered admission processes means mental health patients aren’t screened for risks as well as before.

In recovery areas, patient care is at risk – nurses often have to pay far too much attention to entering details into EPAS than they do with patient care. I have to stay and check that everything is OK whilst nursing attention is often diverted.

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3. "NEAR MISSES"

Around 36 per cent of total respondents and more than 47 per cent of long term users said they could ascribe "near misses" to EPAS. The following comments highlight some of the issues.

I am aware of one instance where a pathology form was done with the wrong patient open on EPAS — easy to do. Therefore the wrong patient details were put on the pathology specimen. If a cancer had been detected, this could have been disastrous. This sort of thing is much easier to do with EPAS than when pathology requests were handwritten. (2+ years user)

A patient had a cardiac arrest during a previous anaesthetic and presented one month later for a repeat try. After 90 minutes of searching by several staff members, the previous anaesthetic chart could not be found. The second anaesthetic had to be conducted without full knowledge of what had happened and why during the previous anaesthetic. (2+ years user)

Info [was] put in the wrong patient file, medications charted for the wrong patient. (2+years user)

I have prescribed gentamicin to the neonatal but it was given twice a day instead of daily dose. I have notified many prescribing errors as result of electronic prescribing but later on those errors have been justified. (2+years user)

It is very easy to enter the case note to the wrong patient, generate orders for the wrong patient including drug orders if the mouse just happens to scroll to the next patient. (2+ user)

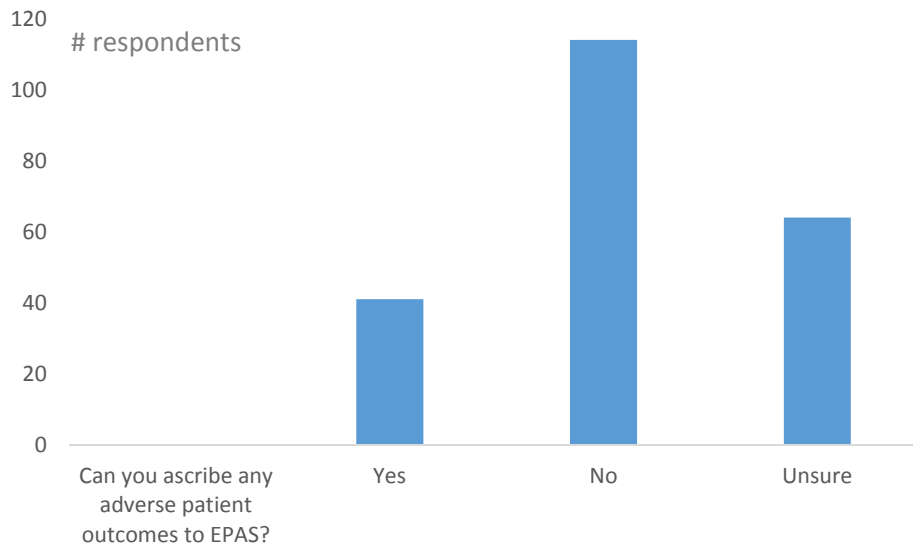
Double dosing of paracetamol – permitted by the system. (2+ years user)

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4. ADVERSE PATIENT OUTCOMES

Around 19 per cent of respondents could ascribe **adverse patient outcomes** to EPAS as Figure 2 suggests.

Figure 2 **Adverse Patient Outcomes Ascribed to EPAS**



And some of the comments around this were alarming:

Results of sleep study not being available to peri-op team, with post-op analgesia causing a respiratory arrest.

Great deal of difficulty getting the forms done to get O negative for a bleeding patient - ended up phoning blood transfusion directly and bypassing EPAS. I think major disasters have been averted because of the clinical skills of the doctors and nurses involved - knowing when to set it aside when we know it gets in the way.

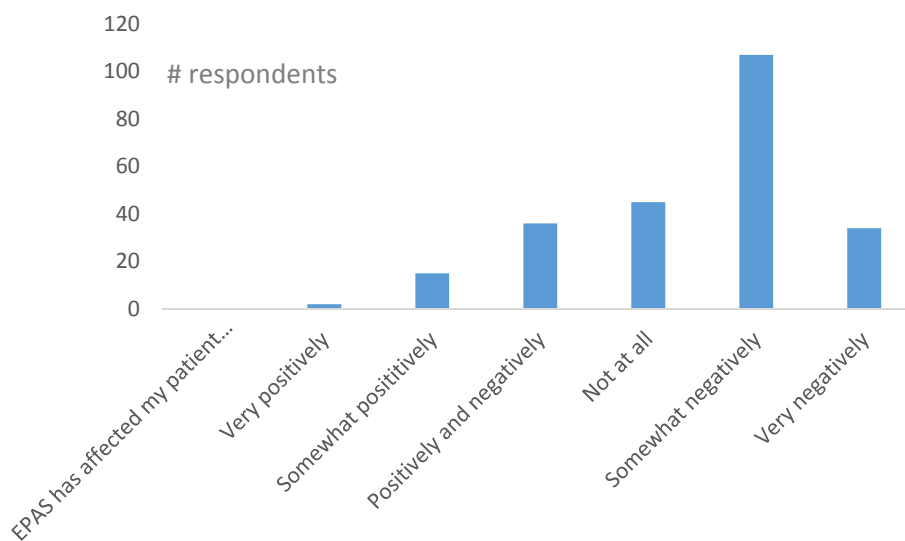
I am not sure whether the delays in obtaining HSD and SAS led to clinical deterioration. It certainly upset them emotionally - they knew they could no longer trust the hospital as a fall-back position of last resort when dependent on rare or expensive or experimental drugs.

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5. PATIENT CARE AND CONTACT

The questionnaire also finds EPAS has **negatively affected patient care** for staff who feel they spend too much time looking at the screen and not at the patient. **Almost 45 per cent say it has affected patient care negatively** while **14 per cent say it has affected patient care very negatively**. Only **7 per cent of doctors report it has had a positive impact on patient care** while **19 per cent say patient care has not been affected**.

Figure 3 EPAS's effect on patient care – total respondents



Of those using the system for more than two years, 48 per cent say EPAS has negatively affected their patient care or contact while 12 per cent say EPAS affects their patient care very negatively.

[We spend] too much time using EPAS on desk top and less time interfacing directly with patients

I have to remind myself to look at the patient rather than the computer screen if I am in pre-anaesthetic clinic. In some instances such as [having] an awake patient in theatre for a caesarean section, I am over in a corner entering post-op drugs etc on a computer, with my back to the patient rather than sitting with her while writing on a paper document on my lap.

Looking at computer screen detracts from patient interaction in the clinic setting. Detracts from observing patient, surgeon and patient monitoring system in a theatre setting (potentially dangerous distraction). Cognitive effort to use EPAS is significant.

I spend most of my time filling out EPAS instead of monitoring my patients.

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6. STAFF WELCOME ELECTRONIC RECORDS BUT NOT EPAS

Electronic patient records have been used in private practice for more than 15 years. Yet while many medical practitioners welcome the concept of electronic records, the questionnaire suggests **EPAS has not delivered on its promise**. These comments are indicative:

It is the worst medical software programme I have ever used!

Compared with electronic medical record use in private practice, the time consuming and cumbersome protocols are intrusive and demanding. Endless logging in, and excessive requirements for authorization are a major problem. The only aspect that is clearly positive is legibility!

I don't think it represents value for money for SA taxpayers – I think SA Health were schmoozed. I have used electronic packages interstate that are better.

A good electronic hospital patient record system would be an asset to our health system. EPAS however is dangerous, not suited to SA clinical applications and should be disbanded.

I agree with the concept of an electronic medical record but EPAS (initially made as a billing system) is very poor for clinical records.

Overall, an electronic medical record is a brilliant idea - but the interface of EPAS is incredibly user unfriendly. I believe it is dangerous, cumbersome and flawed.

It is an electronic medical record so brings those advantages. It is however a very poor one. The people who purchased this program made a mistake. That should be acknowledged as per the open disclosure policy that SA Health demands of its workers.

Electronic records/programs work so well almost everywhere else - but not EPAS, not user friendly. Fixes are so individual as to be useless unless you use them all the time and can remember how to find them.

I think there is a case for electronic records but feel that EPAS may have been chosen on price rather than quality. I am fearful how it will go in a pressured high intensity hospital like the RAH or FMC. Certainly the EPAS team need to finally listen to clinicians and users re the problems rather than blaming the users.

Having been a software engineer prior to entering medicine and with an interest in usability and human factors in interface design, I am appalled at the quality of this software. There are fundamental flaws in the way it works that cause significant impacts on usability and these are issues that, from a technical perspective, should be EASY to fix. I am astounded that so much money was spent on an off the shelf software solution that really doesn't meet requirements. I also cannot see why the interface was not modelled on paper-based records that had been refined over decades to work as effectively as possible (eg Australian Medication Chart).

7. TRAINING IN USING EPAS

Many respondents (41%) say they have not had sufficient training in EPAS. Around 36 per cent say they have had sufficient training, 11 per cent are unsure and 10 per cent say they did not receive sufficient training initially but have subsequently had training.

For many using the system, the problems are not resolved over time.

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8. FAMILIARITY HAS NOT IMPROVED PERCEPTIONS OF EPAS OVERALL

Certainly, some doctors report that productivity has improved as they become accustomed to the new system. **Around 27 per cent of respondents said familiarity with the system somewhat increased their opinion of its usefulness and over 7 per cent said it has significantly increased their opinion of its usefulness.**

It is cumbersome and inefficient. Initially my patient load was reduced by 50 per cent, but as I have gradually gotten used to the system and found work-arounds for its limitations, I am back up to 80 per cent efficiency

Yet the proportion of medical staff who do not find usefulness increases with familiarity is significant. **Of those using the system for more than two years, 39 per cent retain a poor opinion of its usefulness and 18.31 per cent say familiarity with the system has significantly decreased their opinion of its usefulness.**

9. STAFF SEEING FEWER PATIENTS SINCE EPAS WAS INTRODUCED

The questionnaire finds that EPAS slows medical staff down. **Over 27 per cent of respondents report they see somewhat fewer patients and 13 per cent see many fewer patients while only 1.7 per cent see somewhat more patients and 2 per cent see many more.** Respondents say data entry slows them down:

Our records show that prior to EPAS, our department was able to see in-excess of 500 patients per month, but that following the roll out of EPAS, these numbers have reduced to 350 patients per month.

[We] needed extra man power to allow for data entry to EPAS. Data entry has not in any way improved clinical care – just impeded workflow.

Fewer patients are being seen within a given timeframe due to EPAS. This is more of an issue on units with large numbers of patients Seeing a single patient takes much longer with EPAS, as medical teams must: - find an available computer - wait for log-on/loading times (which can be several minutes at a time) - navigate EPAS (which is difficult for several reasons but is in-part due to lack of familiarity with the program) - deal with problems in generating, maintaining and printing off patient lists that contain relevant information for handover etc.

A number of respondents note that the system is inflexible which adds complexity and time to consultations.

There is a push to see the same number or more patients. But the computer input process takes a minimum 10-15 minutes. Thus even if the patient was an ASA1, there is no way to shorten the input time.

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10. PRODUCTIVITY SINCE EPAS WAS INTRODUCED

Figure 4 (below) shows the high proportion of **total respondents who say the system makes them either much less productive (35%) or somewhat less productive (38%)**. No one says EPAS has made their service much more productive. Of respondents who have been using the system for more than two years, 46 per cent said it has made them somewhat less productive. Some respondents report that the system has caused a 25-30 per cent drop in productivity, even after it has been in place for some time.

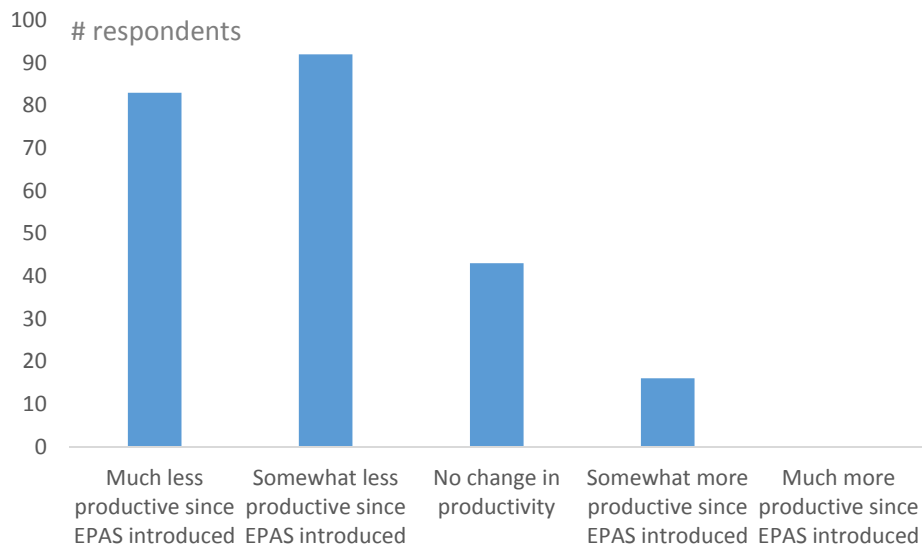
Slow, has added significantly more to admin time, [I] spend a lot of time looking for info on EPAS rather than more productive activities. No improvement over two years.

A poor system. Most of the basic architecture is fixed and cannot be changed, Changes make a bloated system even more bloated. At best, it adds five minutes of admin to each patient. Good luck to the respiratory units in winter - 40 patients equals three hours of extra time every day.

In order to not reduce productivity, I have to come in earlier and stay later which is not paid for by anyone i.e. out of my own time.

It remains significantly less efficient than the processes it replaced, but more importantly I now avoid treating complex or major elective cases at the EPAS site due to safety concerns (inability to get an accurate overview of past medical history, and to view upcoming scheduled appointments with other clinicians for example).

Figure 4 Productivity since EPAS was introduced (total respondents)



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As staff explain:

My job has become more complicated. EPAS is not intuitive, it's easy to make errors - so it requires multiple checks to make sure - in particular - that medications have been charted and signed off properly in theatre. It distracts me from my job of administering an anaesthetic and providing patient care. I'm just relieved when I walk out the door that I've got through the day.

EPAS patients are much slower to process as the amount of information created by the system has largely little clinical value and it is hard to find the relevant documentation.

It takes so long to do anything. Even just to actually get on a computer, you have to hover around the workstation and then jump on a computer when someone stands up. Then they have to hover and wait until another one is free. So many hours and hours and hours wasted waiting for computers to be free. If you try to use a WOW you get told off by the nurses. If you try to use a Desktop you get told off by the admin staff. If you try to take clinical notes to the office you get told off. Doctors should be allocated their own laptops or computers - it would be cheaper than paying people to queue behind computers waiting to enter their notes.

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11. STAFF MORALE

The questionnaire finds the system has affected staff morale with **48 per cent reporting EPAS has significantly affected staff morale** and **33 per cent reporting it has somewhat affected morale**. (Around 16 per cent were unsure and 2 per cent said it had not affected staff morale.) Around **24 per cent say EPAS has impacted on their work-related stress** and **13 per cent say it has significantly contributed to their stress**. More than a third say EPAS is one of a range of contributors to their work-related stress.

12. EFFECT ON STAFF TRAINING

EPAS has also had a negative effect on staff training, with **24 per cent reporting that it has somewhat impacted on training**, **22 per cent saying it has significantly impacted on staff training** and 44 per cent unsure. Only 9 per cent say it has not affected training.

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