AUSTRALIAN MEDICAL ASSOCIATION
(SOUTH AUSTRALIA) INC

20 April 2018

Mr Bill Le Blanc
Executive Director eHealth Systems
& Chief Information Officer

By email: bill.leblanc@sa.gov.au

Dear Mr Le Blanc

Independent Review of EPAS ToR

Thank you for the opportunity to comment on the draft terms of reference for the independent review of EPAS. We have sought feedback from State Council and our membership. The short timeframe limits our response. However, we have provided feedback on the various areas examined (as terms) below.

We have two key concerns:

- The primary consideration should be patients – which should be more apparent in the terms
- We would like the review to deliver recommendations for a way forward – not just an analysis of the problems.

The current terms of reference basically relate to a yes/no question regarding EPAS with no consideration of other options, and the real overriding goal and question – *how SA can have the best medical record and patient management system from this point*? This is irrespective of whether this includes EPAS.

The terms of reference must include the future – where to from here? What models of clinical consultation are needed to inform the next steps to implement successful electronic medical records (E) and PAS? What are the recommendations for ensuring South Australians have an appropriate medical record system going forward?

Some of the parameters that should be included in this is a review of the best way forward considering:

- Usability and *real world clinical workflow* - including adequate user input on an ongoing basis
- Clinical safety
- Efficiency/productivity (patient access; flow and throughput)
- Privacy and security
- Flexibility to cater for different sectors but also junior versus senior staff
- Optimal options for display and finding/searching of clinical information
- Interoperability (*very* important – the ability of software systems to connect and communicate) of systems both within SA Health but also with external health provider IT platforms.
- Ability to upload and view information (especially discharge summaries, pathology and diagnostic imaging) to My Health Record, which will become opt-out later this year, meaning >95% of the Australian community will be captured. Clinicians within SA Health

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will have access to data which they have never had before – and those outside SA Health will be able to obtain clinical data currently hidden behind the SA Health curtain.

- Adequate input and advice from national bodies such at ADHA and ACSQHC

If we take a patient-centred approach some of the issues to address in TOR might be: 1) What advantages has EPAS brought to patient care? 2) What disadvantages? 3) System issues; and 4) the future.

Members are interested to know how we came to get the EPAS, rather than another suite, or even having software produced locally, with some confident that better programs for electronic management of patient records are available and in use in other jurisdictions, with examples given such as EPIC in Melbourne and iEMR at PA in Brisbane.

The existence of the EPAS at some sites, OACIS at others, and paper elsewhere is a further barrier to safe information transmission. We have also received feedback that the interfaces with SnoMed or ICDC is very poor.

However, some members have told us that the major issues for clinicians remain the erratic availability of hardware, and basic machine issues. Rurally, the question has also been put: Why is so much of the hardware centralized in Adelaide?

Some clinicians strongly think EPAS should be abandoned; others think it should be continued but with greater resourcing to address the issues. There is concern that: “If a generic indecisive report is generated [from the review] it will just disappear into SA Health/Cabinet [with] no decision for another 6-12 months” and that “limping along with a damaged system in a few locations with a lack of interest and diminishing support is demoralising, inefficient and adverse patients outcomes will ensue”. A decision needs to be made by Government one way or another and that decision will need to be wholehearted and appropriately funded.

The review should also look at whether e-health management of the EPAS program (rather than SA Health) was appropriate (and make recommendations for management of any future clinical systems.)

Connectivity with other systems, and general practice in particular, has been raised with us by members for inclusion in the terms of reference, including looking into the failure of EPAS to communicate electronically with GPs:

- why is EPAS not open for read-only access to GPs?
- why are Separation Summaries statistics on completion not available in EPAS?
- why can’t EPAS communicate with general practice software using secure encryption?

Members wonder how much impact EPAS has had on the lack of progress in secure messaging to GPs (and other services outside of SA Health) and the lack of capacity for SA Health to interact with My Health Record, both of which have the potential to impact on patient safety. The review should examine the question of interface between EPAS and My Health Record and general practice; and communication with other systems also (eg pathology, radiology, pharmacy).

EPAS needs to be considered in the broader system context. For example, country services are operating on an old legacy system that is out of date. What is the clinical risk of communicating between EPAS and non-EPAS sites? In the country, of 63 hospitals in the network only two have EPAS – and it is hard to communicate between EPAS and paper-based systems – eg smaller hospitals supporting a larger regional one. In the broader system environment, small country hospitals transfer to large metro hospitals with EPAS – transfer documents and GP referrals and discharge summaries need to be considered. In other words, intersystem communication, across the public health system, not just silo site concerns. There are the smaller country hospitals and also larger, tertiary, multiple-department hospitals with radiology, pathology etc, interfacing with ambulance services, GPs, retrieval and more.

1. ***Whether the system is fit for purpose.***

   - *What did SA Health set out to achieve through the EPAS program and has the program delivered on its KPI's?*
   - *Did Epas remain true to its stated direction and approved scope?*
   - *This should include consideration of whether the software product purchased was an appropriate product, and;*
   - *Whether the way the product has been implemented by SA Health has had any impact on its fitness for purpose, and;*
   - *To what degree are barriers to change affecting system acceptance? What role has the execution of required business change (or lack thereof) played in views that the system is not fit for purpose?*

Feedback

- A key deliverable is that the review determines "whether the *current* system is fit for purpose" and "*procured and* implemented".
- Is "business" what is meant here? Given the public health service context. Comparison should be made to manual or usual practice workflow.
- A very salient point raised by members is a concern that "there appears to have been no heuristic analysis of the tasks, as expected to be performed with the EPAS". This is important.
- Re "what did SA Health set out to achieve" – it is of interest to know what the requirements were but we are not sure that SA Health's objectives should be the benchmark. Most important is, what is actually required. There are two components to consider in this – the PAS function (admin, booking, billing etc) and the electronic records function. The better way would be to generate a specification based on what is actually needed. Then measure EPAS against it. One member put it to us that "A good outcome would be a fit-for-purpose system that looks after the notes etc and does not over reach, such as the current system that does ordering, ward management etc."
- EPAS has EMR and PAS components. Both broadly defined functions should be examined. The review should compare to national standards for PAS and EMR, not just what SA Health set out to do. What are the agreed principles for these systems?
- Also, there are national standards for paper medical records that don't seem to apply to EPAS? Has there been a divergence from agreed records management principles?
- What is the scope/feasibility to modify the program to meet clinical user expectations?
- Can the program be simplified to improve the utility of it, particularly the clinical records?
- Members highlighted the importance of ensuring the system produces reports which meet the needs of clinicians to support effective clinical service delivery to their patients.
- It would be of value to explore the feasibility and value or otherwise of using the inbuilt data analytic capability in the system (overseas customers must have a view and exemplars of using the system to improve service planning).

2. ***Whether the system is safe.***

   - *Are there any aspects of the system that create any issues for the safe delivery of clinical services to patients?*

- *How do clinical risks with the system compare to clinical risks for SA Health sites that do not use EPAS? For sites that do use EPAS, has the clinical risk increased or decreased because of EPAS being deployed?*
- *Is the system any more or less safe than equivalent offerings from its competitors?*

Feedback

- Suggest "whether the *current* system is safe"
- Re "How do clinical risks …" Can this be measured in terms of actual clinical outcomes (not 'prevented')
- The terms of reference need to be patient centred – and consider the patient journey and models of care.

3. Why have the projected costs and schedule increased beyond the business case approved by Cabinet?

- *Cabinet approved a 10-year total cost of ownership of $421.5 million to procure the software, to design its implementation for South Australia, to deploy the system to in-scope facilities, and to support and maintain the system for the duration of the 10-year period. The original schedule showed the EPAS deployment to all in-scope facilities being completed in 2014.*
- *What has caused the increase in costs and the delay to the implementation schedule?*
- *How does the performance against budget and schedule compare against eHealth programs of similar size and complexity both interstate and overseas?*

4. What has been the impact on hospital productivity due to the implementation of EPAS?

- *Are there different productivity implications for different user of the EPAS system? What are they, and how does it impact the productivity of the health services overall?*
- *Were the productivity impacts expected or unexpected, and how does the South Australian experience compare to other health jurisdictions interstate and overseas?*

Feedback

- Add, are any negative productivity impacts inherently fixable? What modifications are necessary.
- Add the requirement to examine and recommend 'fixes' for productivity issues.
- What, if any, workforce implications exist to maintain productivity to 'pre-EPAS' levels or better?
- What is the 'social impact' of EPAS on 1) Access to clinical services; 2) clinical safety; 3) transition from public hospital to community care/GP?
- Diversion of resources to 'non-patient'/clinical activity eg increased administration tasks/staff (photocopying, scanning; filing; typing); reduced budget; diversion of clinical staff time.
- Re productivity impacts – this should consider among different users and in different settings eg outpatients, theatre, A&E.

- Add a sub-point regarding the frequent changes to the live/production version of EPAS. ("It is one thing to learn about how to use EPAS, but because the system continues to be significantly and regularly updated, we find ourselves having to continually recreate workflows and find work-arounds which is very tiring and frustrating", as one doctor put it – for example, the sudden and unexpected roll out of a new interface for entering details regarding quantities and repeats for PBS scripts with no warning to staff using the production/live version of EPAS and no additional training around this new 'module').
- Also include examination of the impact of uptime/downtimes on productivity and safety (we understand the product has been shipped as a "light client" which means a significant load time every time the product is used to lessen the requirement of processing on an individual computer basis - presumably so the requirement to update all of SA Health's workstations was lessened)

5. What clinical engagement and consultation has taken place to inform the design and implementation of EPAS?

> *Has adequate clinical consultation been undertaken?*
> *What were the governance and consultation mechanisms used to design the system and were they sufficient?*
> *Why do various clinical groups feel there has been a lack of consultation?*

Feedback

- Add, what resources are currently available to support EPAS users (doctors and department-level)
- Add, what interface issues exist between EPAS and other platforms eg EPLIS; My Health record; Genie?
- Add, what is the impact of interface issues on 1) productivity and 2) clinicians' ability to provide safe care and 3) patient safety?
- What clinical engagement and consultation is needed going forward?

6. What are the issues with the computer / human interface?

> *Relative to claims the system is 'clunky', how does this compare to other eHealth systems of similar scope and complexity?*
> *What is the cause of perceptions that the system is difficult to use (e.g. poor interface out of the box, poor configuration/localisation by SA Heath, insufficient training)?*
> *Is a shortage of devices available to clinicians contributing to access and useability issues (e.g. number of Bedside Computers, Workstations on Wheels, Laptops, tablet computers, mobile phones)?*
> *What issues are due to not having smart card login and / or persistent computer sessions across multiple devices (often referred to as 'tap on / tap off')?*

Feedback

- Add, remote access issues.
- Add "number *and capacity* of Bedside Computers"
- Regarding "6. What are the issues with the computer / human interface?", as one member said to us: "This somewhat bizarre terminology belies a fundamental issue with EPAS and

misunderstanding on the behalf of the EPAS creators: EPAS is fundamentally not "ergonomic;" that is to say, its user interface fails to facilitate efficient and patient focussed healthcare." We have been provided with a range of examples to illustrate this.

- The subpoint "is a *shortage* of devices available to clinicians contributing to access and usability issue s…" is a good one; however, other issues raised with us by members include that:
    - The number of devices is irrelevant when workstations are frequently not operational or broken
    - Functional devices are frequently made useless by a non-operational printer: despite the necessity, now more than ever, of functional printers, they are frequently broken or non-functional
    - A key frustration is the lack of flexibility of the product to deal with these errors: a computer breaks down while you are using it = the work you were doing is lost. A printer is non-functional despite the fact you have sent many orders/scripts to be printed by it = there is no way of re-sending this print job to another computer, meaning valuable time must be spent entering the whole thing again at a different workstation.

7. Why are all SA Health hospitals and health services not in scope?

> *Only two Country Health SA hospitals are in the approved scope for EPAS deployment, Mount Gambier Hospital and Port Augusta Hospital and community mental health services are not in scope.*

> *Why were these hospitals the only country hospitals included to be in-scope?*

> *What is the impact for country health services and mental health services of not including these health services in the approved scope?*

Feedback

- Add, what is the impact on general practice users; what is the productivity impact in rural SA?
- In relation to country services, Country Health services have a legacy PAS system. This needs to be considered, also the lack of connectivity between EPAS/non-EPAS sites. Note that there are 61 or 63 country sites. (See commentary above.)

8. What is the cause of the concerns expressed by the South Australian Coroner regarding EPAS?

Above is some of the feedback from our Council and members on the areas to be considered by the independent review and in relation to the draft terms of reference. We also have detailed feedback on the answers to these questions themselves which we will gladly provide. We also attach the report of our 2017 EPAS survey/questionnaire for consideration in determining the review terms of reference required.

Yours sincerely

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Chief Executive

AMA(SA) EPAS QUESTIONNAIRE 2017

AMA(SA) EPAS QUESTIONNAIRE 2017

CONTENTS

1. EPAS Questionnaire Sites 3

Table 1 EPAS sites 3

Table 2 Staff categorisation 3

2. Clinical safety 4

Figure 1 Staff beliefs about clinical safety since EPAS was introduced 4

3. "Near misses" 5

4. Adverse patient outcomes 6

Figure 2 Adverse Patient Outcomes Ascribed to EPAS 6

5. Patient care and contact 7

Figure 3 EPAS's effect on patient care – total respondents 7

6. Staff welcome electronic records but not EPAS 8

7. Training in using EPAS 8

8. Staff seeing fewer patients since EPAS was introduced 9

9. Productivity since EPAS was introduced 10

Figure 4 Productivity since EPAS was introduced (total respondents) 10

10. Staff morale 12

11. Effect on staff training 12

For more information about the EPAS questionnaire please contact: 12

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AMA(SA) EPAS QUESTIONNAIRE 2017

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.

AMA(SA) EPAS QUESTIONNAIRE 2017

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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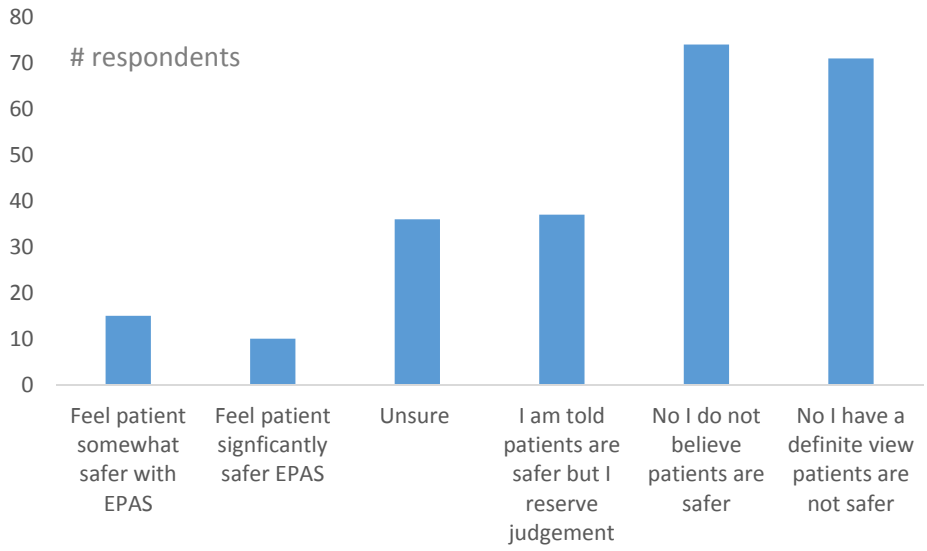
2. CLINICAL SAFETY

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.*

AMA(SA) EPAS QUESTIONNAIRE 2017

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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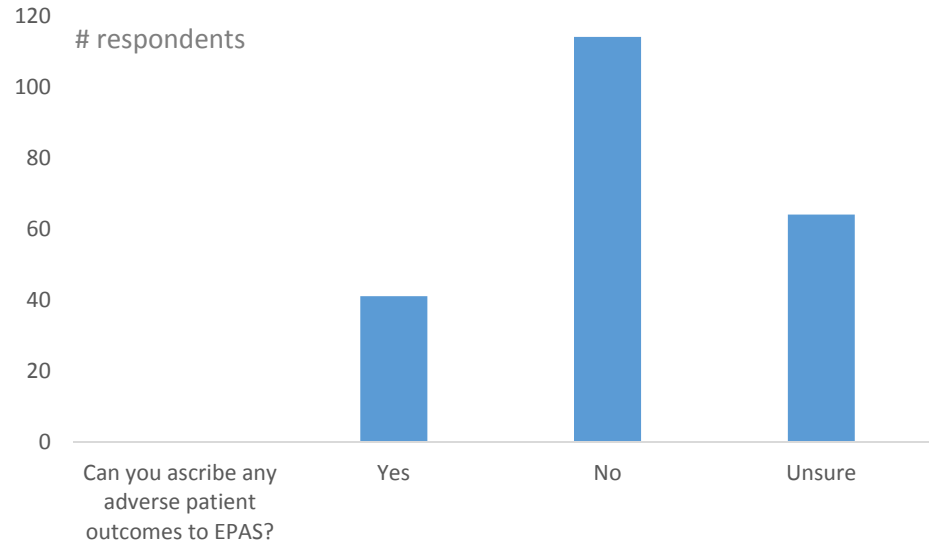
4. ADVERSE PATIENT OUTCOMES

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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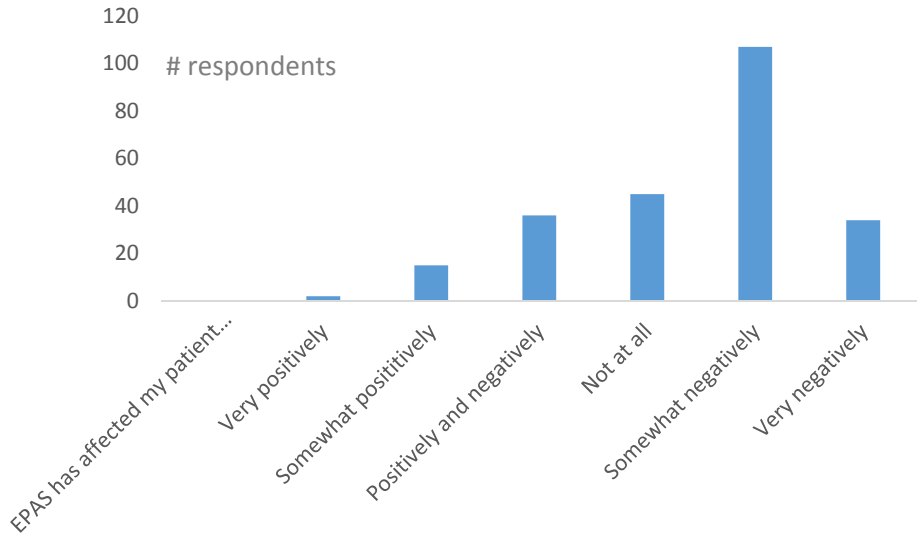
5. PATIENT CARE AND CONTACT

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.

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.

AMA(SA) EPAS QUESTIONNAIRE 2017

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.*

AMA(SA) EPAS QUESTIONNAIRE 2017

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.

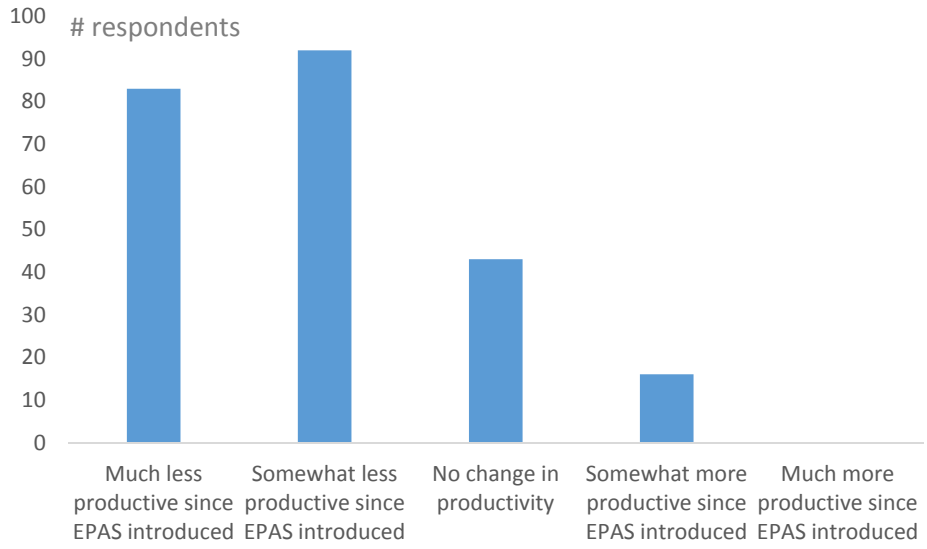
Slow, has added significantly more to admin time, [I] spend a lot of time looking for info on EPAS rather than more productive activities. No improvement over two years.

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.

AMA(SA) EPAS QUESTIONNAIRE 2017

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.

For more information about the EPAS questionnaire please contact:

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