

Alphastudy.com: Knowledge where you need it most



David Dinh Alphastudy.com

Dr Tim Tam Royal Prince Alfred Hospital
Emergency Physician

Dr Kendall Bein Royal Prince Alfred Hospital
Emergency Staff Specialist

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Aims

- Introduce Alphastudy.com
- Features and capabilities in Alphastudy
- Demonstrate Alphastudy uses in healthcare
- Show real hospital case examples



Quick background about me...

- Healthcare technology & RnD +5 yrs
- Papers in Emergency Medicine Australasia
- Presentations in San Francisco US, Toronto Canada, Auckland New Zealand, Australia
- Don Walker 2008 Award – Australian Health Informatics Award outstanding achievement
- Young Australian Innovator Finalist 2008
- Profile <http://www.linkedin.com/in/daviddinh>

What is Alphastudy?

- Essentially bringing together “disparate tools, systems, disparate silos of knowledge together”
- Closes the gaps and opens accessibility to the right knowledge within the organisation

The collage consists of four screenshots from the Alphastudy platform:

- Enabling easy access research:** A page titled "Guidelines and protocols for evidence-based practice" featuring a pyramid diagram with levels from "Local Health System" to "National Health System".
- Software Development Employer Portal:** A page titled "Staff Recruitment" with a sidebar menu and a main content area with an "INTRODUCTION" section.
- Understanding Asthma:** A patient education video player showing a red, coiled tube labeled "MUCUS" with a play button in the center.
- Employee Performance Review – Peer Review:** A form for a peer review. It includes a scale from 1 (Unsatisfactory) to 5 (Exceptional) and a table of criteria for evaluation.

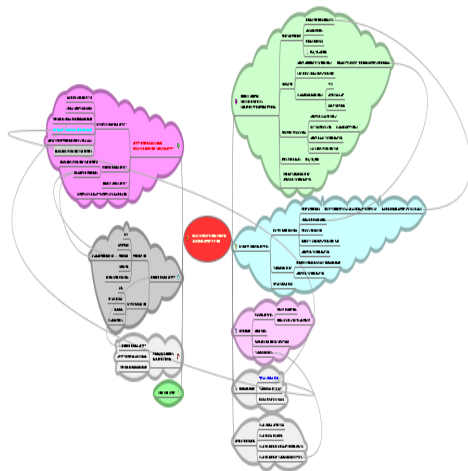
	1	2	3	4	5
Demonstrates Required Job Skills And Knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has The Ability To Learn And Use New Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uses Resources Available In An Effective Manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Responds Effectively To Assigned Responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meets Attendance Requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listens To Direction From Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Takes Responsibility For Actions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meets Commitments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates Problem Solving Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Offers Constructive Suggestions For Improvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generates Creative Ideas And Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meets Challenges Head On	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates Innovative Thinking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What Alphastudy aims to...

- Provide an easy to use and effective platform to develop quality knowledge content
- Enable knowledge communities
- Motivate information sharing and content development
- Promote health education, trusted content
- Healthcare is a knowledge rich environment, how to best capture this?

The story of alphastudy

- Content Information Laundry vs Knowledge Builders
- Blogs, Wikis, Social Bookmarking
- San Francisco ICEM April 2008
- First prototype November 2008
- Launch of research projects Dec 2008 – March 2009



Online Training and Education		
Logo 1	Logo 2	
Login username/password	Quote of the day/reminder or notice	Date and time
Current CME tally for entire group	Virtual Journal Club (short summary of Current entry)	next
Contact us	Trauma CME (short summary of current)	next
Submit a case or presentation	ED CME (short summary of topic)	next
Links CIAP RPAH	Case discussion (short summary of topic)	next
Advertising space	Policies and Procedures in Emergency Medicine	next



Core features

- Unified platform
- Online productivity tools
- Platform independent, devices, mobile
- Crowd wisdom
- Participants develop quality trusted content



Allows users to...

- **Question existing processes, conduct new research, share new knowledge:**
- How will we know if a new process will succeed?
- How can we get more reliable information?
- Identify knowledge gaps and address them fast
- How can we reduce medical errors? How do we measure and benchmark processes?



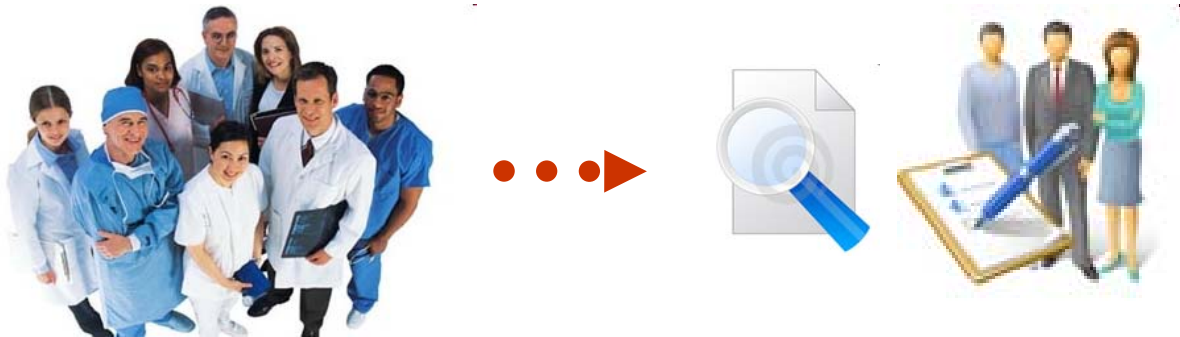
Opens a new knowledge paradigm

- The world is getting smarter and more interconnected. More opportunity to learn, analyse data and make more informed decisions. Smarter use of data, optimising for future events.



Plexagogy

- Plexagogy. Leveraging from the crowd wisdom
- Rather than searching for answers on the internet, get subjective answers from opinions and experiences of others.
- Decentralised workspaces, sharing skills and knowledge for greater participation
- Online knowledge community interaction

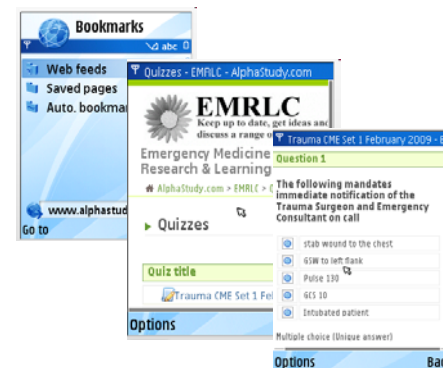
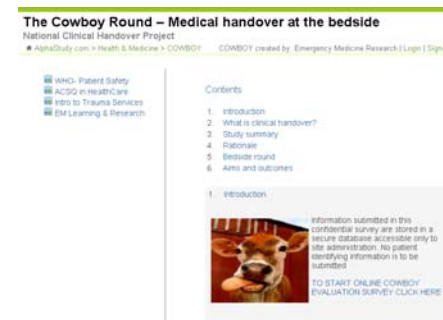


What does this all lead to?

- Collaborative network knowledge sharing
- The team get involved to participate with their colleague's research studies and projects because they know it will make a difference to their daily hospital work
- Healthcare users make more informed decisions

How is Alphastudy currently being used?

- Trauma Audit May – Apr 09
“Code crimson audit”
- 2009 Clinical Handover at the Bedside (WHO study patient safety)
- 2009 Australasia Survey of Ultrasound Capabilities
- RPAH Research project registry
- Sydney Emergency Online Research Centre
- RPAH ED clinical research studies



Trauma Audit 2009, RPAH

- Staff teamed up and worked together, results... identified knowledge gaps in specific clinical areas
- Quick study allowed clinicians improve education sessions, simulations and improve processes
- An example of how Alphastudy was used to quickly uncover a significant knowledge gap in one of the mandatory protocols
- Trauma Audit 2009

Trauma audit April-May 09

- Fragmented knowledge in the team leading to varied treatment practices and patient outcomes
- Address critical knowledge gap and differences
- Method: before/after qualitative
- Follow up audit to assess compliance

Why did clinicians use Alphastudy?

- Integrated study setup by clinicians
- Gained stakeholder and internal support since the aims improved everyone's knowledge
- Enabled fast knowledge transfer
- Demonstrated to management solid improvements in patient treatment and knowledge outcomes
- Provided a benchmark to compare future studies
- Opened participation, disseminate findings to users

Compliance results

- Knowledge gaps identified (before) :
 - Consultant notification SBP<90 (67%)
 - Code crimson activation (75%)
 - Transfer to OT in 20 minutes (73%)
- Knowledge gaps identified (after) :
 - Consultant notification SBP<90 (90%)
 - Code crimson activation (93%)
 - Transfer to OT in 20 minutes (90%)

Trauma Audit Outcomes

- Improved decision making amongst the team
- Clinicians identified improvements in processes
- Knowledge transferred to new staff fast
- Improved trauma protocol compliance



Clinical Handover Study 2009

- WHO's High 5 of Patient Safety
- Australian Quality & Safety in Health Care Commission
- National Handover Initiative

- Dr Tim Green (RPAH ED Director)
- Staff Specialists
- Nursing Managers

2009 Clinical Handover Study

- Collect the following outcomes:
 - Identify unwell patients and previously unidentified issues
 - Improve patient satisfaction
 - Improve patient safety
 - Introduce patient to senior staff in the department
 - Ensure observations documented and variations identified
 - Identify missed clinical signs and verify



Reason for the study

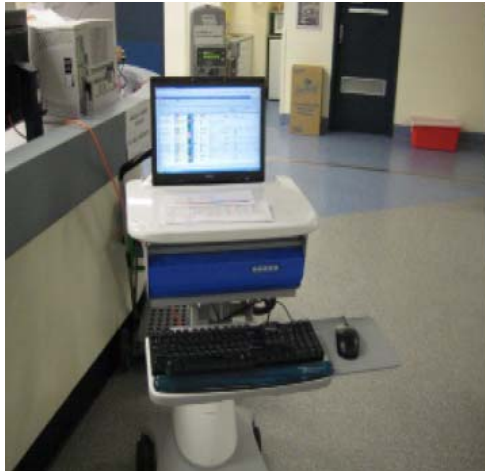
- Improve patient safety
- Speedy review of the patient post handover
- Improve patient flow
- Increase patient satisfaction
- Earlier management decisions
- Increased staff specialists & senior registrar involvement

Vs

- Outdated information
- Variable level of detail
- Inconsistent use of the whiteboard
- Little involvement of junior staff
- Inconsistent post handover review

Clinical Handover Study...

- Online knowledge site setup by clinicians on Alphastudy
- Study disseminated to all clinical members
- Alphastudy was available on the intranet
- Conducted post implementation observations

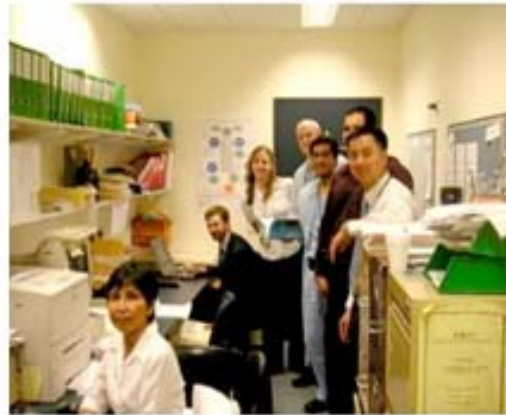


Clinical Handover Outcomes

- Patient safety is a sensitive issue...
- Alphastudy's researching, validation, discussion capability helped improved clinical handover processes now entrenched in the Emergency room culture and now done regularly
- More comfortable environment to ask questions, evaluate and seek better outcomes. Change in healthcare is less risky when you have more information and internal studies/reviews to back your claims.

Further use at Royal Prince Alfred Hospital

- The Royal Prince Alfred Hospital
 - Approx 60,000 presentations annually through the ED.
 - RPA operates as a Level 6 (teaching hospital) Emergency Department and is a designated trauma centre.
 - Accredited for advanced training in Emergency Medicine by the Australasian College for Emergency Medicine



Some uses at RPAH



Trauma training

- <http://alphastudy.com/sites/topic/index.php?cid=SYDNEYTRAUMATEAM>

Introduction to Trauma Services

Sydney Trauma Team- discuss, prep, questions

AlphaStudy.com > SYDNEYTRAUMATEAM

Login

- Description
- Surveys
- Quizzes
- Discussions
- C.O.W.
- contra coup

INTRODUCTION TO **TRAUMA** SERVICES



We have a new updated site! Welcome to the Trauma resource website. On this site you will find the trauma team registration survey and medical student rotation feedback forms

- **TRAUMA TEAM MEMBER REGISTRATION & ORIENTATION SURVEY**
- **THIRD YEAR MEDICAL STUDENT ROTATION FEEDBACK AND ASSESSMENT**

Emergency Medicine Research Centre

- <http://alphastudy.com/sites/topic/index.php?cid=EMRLC>



Emergency Medicine Research & Learning Centre

AlphaStudy.com > EMRLC

Login

- Description
- Surveys
- Quizzes
- Discussions
- Virtual Journal Club
- Exam Practice
- MCQ of the month

Welcome to the Emergency Medicine Research & Learning Centre




Keep up to date, get ideas and discuss a range of topics.

Virtual Journal Club discussions - a selected article reviewed by a guest user and comments contributed by others

Kendall's ECG Master class updated monthly

Evidence based practice reviews

- Information is liberated from the experts, learn from other participants.

 **EMRLC**
Keep up to date, get ideas and discuss a range of topics.

Emergency Medicine Research & Learning Centre

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AlphaStudy.com > EMRLC > Discussions View mode : Public view | [Site Admin](#) | [Users can join](#)

► Discussions

[Forum Index](#) > [VJC - month by month](#) > **Jan 09 VJC: Steroids for paediatric meningitis by Dr Matt Smith**

[Notify me by email of updates](#) [Reply](#) | [Search](#) | [Last message](#)

Jan 09 VJC: Steroids for paediatric meningitis by Dr Matt Smith

by : Forums Emergency Medicine Posted : January 12, 2009 at 07:48 PM

[CLICK HERE TO VIEW ARTICLE](#)

Corticosteroids and Mortality in Children with Bacterial Meningitis

JAMA May 7 , 2008 - Vol 299, No 17




















































Is the subject relevant to our practise?

Corticosteroids have been shown to reduce hearing loss in children with Hib meningitis. However, since the Hib vaccination was introduced to the routine vaccination schedule in Australia in 1993 there has been a 90% reduction in cases of Hib with currently only 15 cases per year being reported (and not all of these are meningitis). The evidence for mortality benefit of corticosteroids in children is sparse with a Cochrane review examining RCT's from 1969 to 2006 finding no significant mortality benefit. The NSW paediatric guidelines currently recommends that steroids should be given to children just before the first dose of antibiotics but not in those who have been pre-treated with antibiotics, or less than 3 months. No recommendation is given for those with "advanced meningitis" or severe sepsis.

This study aimed to examine the effect of corticosteroids on mortality and length of stay and hospital charges in children with bacterial meningitis



- Greater leverage from peers with the similar knowledge pursuits.

File list Thumbnails						
Name	Size	Date	Modify	Delete	Move	Display
 backup						
 Fellowship_exam_resources						
 images						
 Primary_exam_resources						
 Blunt_aortic_injury.pdf	919.39 KB	27.02.2009				
Dec VJC						
 Blunt_chest_trauma_pathway.doc	60.5 KB	27.02.2009				
 CorticosteroidPaedMeningVJCJan08.pdf	130.35 KB	27.02.2009				
VJCJan08 Corticosteroids for meningitis						
 Example_document.pdf	10.89 KB	27.02.2009				
 FAST.pdf	112.73 KB	11.03.2009				
FAST						
 Fast_track.pdf	97.33 KB	27.02.2009				
VJC November (2)						
 Feb09ECG.jpg	175.72 KB	27.02.2009				
Feb 09 teaching case						
 Intranasal_fentanyl.pdf	132.28 KB	03.03.2009				
VJC March 2009						

Clinical training, knowledge management

- Increased user contribution leads to a growth of “collective intelligence” and re-usable knowledge

Question 4

A 22 year old male presents after a stab wound to the left chest. He is pale and diaphoretic. His BP is 70/- with pulse 120. A full trauma team is activated. Your priorities are to

- ☐ wait for the arrival of the trauma team
- ☐ perform a FAST to exclude tamponade and then call the Cardiothoracics team
- ☐ perform an ECG and troponins
- ☐ start high flow oxygen, obtain an immediate CXR and call the Cardiothoracics team
- ☐ local inspection of the wound to exclude pleural penetration

Multiple choice (Unique answer)

[< Previous question](#) | [Next question >](#)

Question 5

At 0200 the BAT phone rings in with an 18 year old female GSW after a domestic dispute. Initial BP 60/-, whilst en route, vital signs are lost. Arrival in 5 minutes. In the intervening time you would arrange all of the following except:

- ☐ ED thoracotomy tray with sterile gowns and gloves
- ☐ Contact Radiology Registrar on call
- ☐ Inform OT and activate massive transfusion protocol with blood bank
- ☐ Full Trauma activation with Trauma Surgeon and Cardiothoracics notification
- ☐ Ensure the entire team is wearing lead gowns and disposable protective gear

Multiple choice (Unique answer)

[< Previous question](#)

[Finish the test](#)

- Results of the quizzes done [\[Close\]](#)

Scores of quizzes done

Quizzes	Worst score	Best score	Average score	Average Time	Attempts	Last attempt
Primary exam review - Pathology - Blood vessels (Chapter 12 Robbins 6th ed)	6	6	6	4 min. 45 sec.	1	2009-03-16 06:51:18
Trauma CME Set 1 February 2009	4	4	4	4 min. 29 sec.	1	2009-02-03 02:15:01
Date				Score	Time	
2009-02-03 02:15:01				4/5	4 min. 29 sec.	

Statistics by question

Question title	Worst score	Best score	Average score
The following mandates immediate notification of the Trauma Surgeon and Emergency Consultant on call	0/1	1/1	0.46/1
A 36 year old man presents after a gunshot wound to the left subcostal region in the anterior axillary line. SBP 90, Pulse 100, RR 24. You are the trauma team leader and a primary survey is being completed by your team. Your first priority as the team leader is:	0/1	1/1	0.77/1
The following are appropriate indications for an urgent CT except	0/1	1/1	0.54/1
A 22 year old male presents after a stab wound to the left chest. He is pale and diaphoretic. His BP is 70/- with pulse 120. A full trauma team is activated. Your priorities are to	0/1	1/1	0.85/1
At 0200 the BAT phone rings in with an 18 year old female GSW after a domestic dispute. Initial BP 60/-, whilst en route, vital signs are lost. Arrival in 5 minutes. In the intervening time you would arrange all of the following except:	0/1	1/1	0.69/1

Short studies and questionnaires

- Quickly setup and conduct research studies
- Analyse and collect data fast
- Gain a deeper understanding of issues and needs

► Trauma rotation feedback form

[Edit this survey](#) | [Results](#)

You have attempted this survey 0 out of unlimited times. You have unlimited attempts left to fill out this survey. Alphastudy survey platform is compliant with HIPAA Privacy and Security Acts and is bound by the National Privacy Principles in the Privacy Act 1988 (Cth).

To be completed at the end of your trauma week rotation. Please provide us with your feedback so that we can improve the rotation for future students.

Overall - how would you rate your trauma rotation week?

☐ excellent ☐ very good ☐ good ☐ fair ☐ poor

Were the learning objectives for trauma made clear during the week?

☐ Yes ☐ No

How many trauma resuscitations did you observe during your week?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ >5

How can we improve the educational experience of the trauma rotation (general comments)?

Indicate which of the following you were able to attend or observe during the trauma week

- ☐ trauma patient assessment and management in the Emergency Department
- ☐ tertiary survey round
- ☐ trauma tutorials (initial management and practical skills)

► Understanding your asthma

[Edit this survey](#) | [Results](#)

You have attempted this survey 0 out of unlimited times. You have unlimited attempts left to fill out this survey. Alphastudy survey platform is compliant with HIPAA Privacy and Security Acts and is bound by the National Privacy Principles in the Privacy Act 1988 (Cth).

This video can be used in a patient feedback survey to assess the effectiveness of an Asthma Education program for consumers. The user can first watch the video, and follow up questions are provided as part of a feedback study



This is a multiple choice question sample		
Response	Number of answers / Total 5	Percentage
2	1	20.00 %
4	1	20.00 %
5	2	40.00 %

This is a checkbox style question sample		
Response	Number of answers / Total 20	Percentage
No answer	11	55.00 %
1	2	10.00 %
2	2	10.00 %
3	1	5.00 %
4	2	10.00 %
5	2	10.00 %

Future?

- Acting as a knowledge broker
- Health research portals for professionals
- Asking the crowd for expert advice
- Enhancing decision support systems with local knowledge
- Farm out small packets of work to different research groups.



Interested?

- Deploy into healthcare specialties and more research environments
- Implement for more research projects, scientific studies
- Rollout enterprise and corporate packages
- Partnerships for healthcare deployment
- Improve the access and sharing of knowledge
- Continue to provide a platform to foster collaboration and innovation

How to start using Alphastudy ...



- <http://www.alphastudy.com/index.php>
- Click on **Create a new site**
- If you are a new user, follow the simple new account registration steps
- Provide a **Site Title** and some basic site info
- Alphastudy will build the rest for you...
- Send me an email: david.dinh@