



FINAL REPORT

USM Short Term Grant: 304/PPSP/6131378

Title:

**Nosocomial *Acinetobacter* bacteraemia in
HUSM**

Researchers:

Dr Azian Harun

Dr Zakuan Zainy Deris

Prof Madya Mohd Radzi Johari



SENARAI SEMAKAN UNTUK BUKU LAPORAN AKHIR GERAN USM JANGKA PENDEK

NAMA PENYELIDIK UTAMA	: DR AZIAN HARUN
NAMA CO-RESEARCHER	: DR ZAKUAN ZAINY DERIS, PROF MADYA MOHD RADZI JOHARI
TAJUK GERAN	: Nosocomial Acinetobacter bacteraemia in HUSM
NO.AKAUN	: 304/PPSP/6131378

SENARAI SEMAKAN SEMASA PENYERAHAN BUKU LAPORAN AKHIR
(Sila Tandakan (√) Pada Kotak Yang Berkenaan)

NO.	PERINCIAN	ADA	TIDAK
1.	Borang Laporan Akhir Projek Penyelidikan USM Jangka Pendek	√	
2.	Borang Laporan Hasil Penyelidikan, PPSP	√	
3.	i) Salinan Menuskrip	√	
	ii) Salinan surat/email bukti penghantaran kepada mana-mana journal		
4.	Penyata Perbelanjaan (Financial Statement) (Sila dapatkan daripada Jabatan Bendahari)	√	
5.	Laporan Komprehensif (termasuk kertas persidangan atau seminar dan penerbitan saintifik hasil daripada projek ini)	√	
6.	Surat pemakluman penghantaran Laporan Akhir ke Bhg. Penyelidikan	√	

Nota:

- * Sila buat 3 salinan buku laporan Akhir
- * No. 1-5 - Perlu dimasukkan dalam Buku Laporan Akhir
- * No.6 - Hantar terus Kepada Cik Amra Othman (RCMO) hanya salinan sahaja kepada Bhg. R&D, PPSP

My doc/checklist borang2/sue



LAPORAN AKHIR PROJEK PENYELIDIKAN JANGKA PENDEK FINAL REPORT OF SHORT TERM RESEARCH PROJECT

Sila kemukakan laporan akhir ini melalui Jawatankuasa Penyelidikan di Pusat Pengajian dan Dekan/Pengarah/Ketua Jabatan kepada Pejabat Pelantar Penyelidikan

1. Nama Ketua Penyelidik: AZLAN HARUN Name of Research Leader							
<input type="checkbox"/> Profesor Madya/ Assoc. Prof.		<input checked="" type="checkbox"/> Dr. D.		<input type="checkbox"/> Encik/Puan/Cik Mr/Ms/Ms.			
2. Pusat Tanggungjawab (PTJ): Pusat Pengajian Sains Perubatan School/Department							
3. Nama Penyelidik Bersama: ZAKUAN ZAINY DERIS, MOHD RADZI JOHARI Name of Co-Researcher							
4. Tajuk Projek: Nosocomial <i>Acinetobacter</i> bacteraemia in HUSM Title of Project							
5. Ringkasan Penilaian/Summary of Assessment							
		Tidak Mencukupi Inadequate		Boleh Diterima Acceptable		Sangat Baik Very Good	
		1	2	3	4	5	
i) Pencapaian objektif projek: Achievement of project objectives		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
ii) Kualiti output: Quality of outputs		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
iii) Kualiti impak: Quality of impacts		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
iv) Pemindahan teknologi/potensi pengkomersialan: Technology transfer/commercialization potential		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
v) Kualiti dan usahasama : Quality and intensity of collaboration		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
vi) Penilaian kepentingan secara keseluruhan: Overall assessment of benefits		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

6. Abstrak Penyelidikan

(Perlu disediakan di antara 100 - 200 perkataan di dalam Bahasa Malaysia dan juga Bahasa Inggeris. Abstrak ini akan dimuatkan dalam Laporan Tahunan Bahagian Penyelidikan & Inovasi sebagai satu cara untuk menyampaikan dapatan projek tuan/puan kepada pihak Universiti & masyarakat luar).

Abstract of Research

(An abstract of between 100 and 200 words must be prepared in Bahasa Malaysia and in English).

This abstract will be included in the Annual Report of the Research and Innovation Section at a later date as a means of presenting the project findings of the researcher/s to the University and the community at large)

Acinetobacter spp is a known nosocomial pathogen causing a wide range of clinical diseases such as pneumonia, wound infection and bloodstream infections (BSI). The clinical outcomes of acinetobacter BSI were compared to other gram negative infections. The crude mortality of acinetobacter BSI was 47.2%, which was significantly greater than other gram-negative BSI. We found that patients treated in intensive care units (ICU), who had longer ICU stays, who presented with shock or coagulopathy, had prior exposure to carbapenems, had mechanical ventilation, were on a ventilator for longer periods, had a nasogastric tube, had an arterial catheter or had parenteral nutrition at a significantly greater risk of mortality due to acinetobacter BSI. Patients presenting with septic shock or having a central venous catheter were independently at higher risk for mortality. Appropriateness of therapy reduced the mortality attributes of acinetobacter BSI but did not significantly reduce crude mortality in acinetobacter BSI patients. This study shows the importance of preventing acinetobacter BSI and the appropriate use of antimicrobial agents to reduce mortality.

7. Sila sediakan laporan teknikal lengkap yang menerangkan keseluruhan projek ini.

[Sila gunakan kertas berasingan]

Applicant are required to prepare a Comprehensive Technical Report explaining the project.

(This report must be appended separately)

- see attached document -

Senaraikan kata kunci yang mencerminkan penyelidikan anda:

List the key words that reflects your research:

Bahasa Malaysia

Acinetobacter

Jangkitan nosokomial

Bahasa Inggeris

Acinetobacter

Nosocomial infections

Blood stream infections

8. Output dan Faedah Projek

Output and Benefits of Project

(a) * Penerbitan Jurnal

Publication of Journals

(Sila nyatakan jenis, tajuk, pengarang/editor, tahun terbitan dan di mana telah diterbit/diserahkan)

(State type, title, author/editor, publication year and where it has been published/submitted)

1. Zakuan Zainy Deris. Nosocomial *Acinetobacter* blood stream infection in Hospital Universiti Sains Malaysia, Kelantan. Dissertation submitted in partial fulfilment of the requirement for the degree of Master of Pathology (Microbiology). Universiti Sains Malaysia 2005 (salinan tidak disertakan).
2. Zakuan Zainy Deris, Azian Harun, Mohd Nazri Shafei, Rosliza A Rahman, Mohd Radzi Johari. Outcome and appropriateness of management of nosocomial *Acinetobacter* blood stream infections at a teaching hospital in northeastern Malaysia. *Southeast Asian J Trop Med Public Health* 2009; 40: 1-8 (salinan disertakan)
3. Zakuan Zainy Deris, Azian Harun, Mahamarowi Omar, Md Radzi Johari. The prevalence and risk factors of *Acinetobacter* blood-stream infection in tertiary teaching hospital in north-eastern Malaysia. *Tropical Biomedicine* 2009; 26: 123-129 (salinan disertakan)