

## Independent Learning Project (ILP)

The ILP is taken over a 32 week timeframe and is comprised of three consecutive enrolments: ILP 1 (8 Weeks), ILP 2 (16 weeks) and ILP 3 (weeks). Students also complete 12 units of extra Faculty courses concurrently with the ILP 2. For more information on the ILP, please see the ILP Web Page. [<p>]

### Administration

Status:	Archived
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Start Date:	
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### Project Background

Project Code:	E0C-71E
Project Title:	Infections associated with implantable cardiac devices
Primary location for project: (organisation)	Prince of Wales Hospital
Primary location for project: (town/suburb)	Randwick
School/Centre for allocation of funds:	Prince of Wales Clinical School
Has this project been designed (negotiated) for a specific student?	Yes

### Student Details

Student ID:	
First Name:	Leigh
Last Name:	Cummins
Year ILP will commence:	

## Supervisor Details

Staff ID:

Title: Associate Professor

First Name: Philip

Last Name: Jones

Contact Phone:

Contact Email:

Affiliation to UNSW: Conjoint

Have you previously supervised research students? Yes

Do you want a Co-Supervisor? No

## Recommended Examiner

Staff ID:

Title: Associate Professor

First Name: Roger

Last Name: Allan

Contact Phone:

Contact Email:

Affiliation to UNSW: Conjoint

Has the recommended examiner agreed to this role? No

## Project Details

Content Stream: Medical Practice

Discipline: Cardiology

Content Topic: Infection, inflammation and immunity

Aims of the project: 

- To describe the clinical presentations of infections involving cardiac pacemakers and implantable defibrillators.

- To determine the outcomes of treatment in patients with infections of implantable cardiac devices.

Background:

Infections of implantable cardiac devices, including pacemakers and defibrillators, occur in approximately 2-3% of patients. Two major types of clinical presentations are recognised - infections at the site of implantation and infection of the intravascular portion of the device leading to bacteremia and possibly endocarditis. While antimicrobial may suppress these infections, cure is generally not possible without removal of the device. Newer techniques of non-invasive removal of cardiac devices have improved the outcome of patients with these infections. The Eastern Heart Clinic in the Prince of Wales Hospital has one of the largest services for non-invasive removal of implantable cardiac devices. Patients with infections requiring explantation are routinely seen by staff from the Department of Infectious Diseases. This project aims to describe the presenting clinical features and outcomes of patients with infections of implantable cardiac devices.

## PROJECT PLAN

*Student tasks over 32 weeks. Please note that students will be enrolled in extra Faculty courses at the same time as the ILP. For more information on structure of the ILP over the 32 week timeframe.*

ILP 1:

The student will undertake a literature review of infections associated with implantable cardiac devices. Based on prior knowledge of clinical presentations and treatment outcomes, the student will develop a data collection form and database for recording relevant data from both retrospective and prospective patient cohorts.

A retrospective analysis of patients hospitalised with pacemaker and defibrillator infections in the past 2 years will be performed. Patients will be identified from various sources including medical records and the records of the Eastern Heart Clinic.

ILP 2:

The student will continue both retrospective and prospective data collection. All patients with infections of implantable cardiac devices will be reviewed by the student and subsequently followed to document outcome. It is expected that the retrospective and prospective datasets will comprise approximately 100 patients.

ILP 3:

Data collection will be completed and data analyses will be performed.

Project outcomes:

- The clinical presentations of infections of cardiac devices will be described.
- Treatment outcomes in patients with infections of cardiac devices will be determined.

Learning outcomes:

- Understand how to interpret studies reporting on clinical features and treatment outcomes.
- Understand the limitations of retrospective and prospective studies.
- Develop an understanding of the clinical presentation and course of infections of cardiac devices.
- Improve clinical skills in the assessment of patients.

Key References:

Chua JD. Wilkoff BL. Lee I. Juratli N. Longworth DL. Gordon SM. Diagnosis and management of infections involving implantable electrophysiologic cardiac devices. *Annals of Internal Medicine*. 133(8):604-8, 2000.

Has [ethics approval](#) been No

sought for this project?

Please outline what measures will be undertaken to attain approval:

Ethics approval will be obtained before commencement of the data collection. Student will assist with final submission.

Is this project suitable to be considered for the [Bachelor of Science \(Medicine\) Honours Program?](#)

No

Special Note:

### Declaration

Declaration from supervisor:

I have understood the [roles and responsibilities](#) of the supervisor

Field Changes