

In Australia, **Abbott** is a major player in the neuromodulation market, specifically through its **Deep Brain Stimulation (DBS)** technology.¹ Their role is defined by a "digital-first" approach that addresses one of Australia's biggest healthcare challenges: providing specialized care to patients living in regional and remote areas.²

What is Deep Brain Stimulation (DBS)?

DBS is often described as a "pacemaker for the brain."³ It involves surgically implanting thin wires (leads) into specific areas of the brain that control movement.⁴ These leads are connected to a small medical device (an Implantable Pulse Generator, or IPG) usually placed under the skin near the collarbone.⁵

Abbott's Key Technologies in Australia

Abbott's DBS portfolio is distinguished by its use of modern consumer technology (like iOS and Bluetooth) to make treatment more discreet and accessible.⁶

- **The Infinity™ DBS System:** This was the first DBS system in Australia to feature **directional leads**. Traditional leads send electricity in all directions (360 degrees), which can sometimes cause side effects by stimulating the wrong tissue. Abbott's directional technology allows neurologists to "steer" the electrical current toward specific targets to maximize symptom relief while minimizing side effects.⁷
- **The Liberta™ RC System:** As of 2025, this is the world's smallest rechargeable DBS system available in Australia.⁸ It is notable for having the longest interval between charges (up to 15 years of battery life) and being highly compact, which improves patient comfort.⁹
- **iOS Integration:** Unlike older systems that required bulky, proprietary handheld controllers, Abbott systems allow patients to manage their therapy using a familiar interface on an **iPhone or iPod Touch**.¹⁰

Their Role in the Australian Healthcare Landscape

Abbott has positioned itself as a leader in "Tele-Neurology" within the Australian market. This is particularly significant for several reasons:

1. Overcoming Geographical Barriers (NeuroSphere™)

The most significant impact Abbott has had in Australia is the introduction of the **NeuroSphere™ Virtual Clinic**. This platform allows neurologists to remotely adjust a patient's brain stimulator settings over a secure Wi-Fi or cellular connection.¹¹

- **The Impact:** In a country as large as Australia, patients in rural WA or Queensland previously had to fly to major cities like Brisbane, Sydney, or Melbourne just for a 15-minute programming adjustment. Now, these "virtual house calls" save patients thousands of dollars in travel and days of transit.

2. Specialized Clinical Centers

Abbott works closely with leading Australian neurological centers. For example, **St Andrew's War Memorial Hospital** in Brisbane is a primary hub for Abbott's DBS tech, where pioneering teams (such as those led by Professor Peter Silburn and Dr.¹² Terry Coyne) performed the first Asia-Pacific implants of their newest rechargeable systems.¹³

3. TGA Approval and Accessibility

All of Abbott's major DBS components are included on the **Australian Register of Therapeutic Goods (ARTG)**. This means they are approved for use in treating:

- **Parkinson's Disease** (managing tremors, rigidity, and "off" time).¹⁴
- **Essential Tremor.**
- **Dystonia.**

Summary Table: Why Abbott is Distinct in Australia

Feature	Impact for Australians
Remote Programming	Crucial for regional/rural patients; reduces travel to major cities.
Directional Leads	Provides "precision steering" of electricity to reduce side effects.
Smallest Device	The Liberta RC is less visible under the skin and more comfortable.
Bluetooth/iOS	Allows patients to check battery and adjust

	settings discreetly on a phone.
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