



# Diabetes management



## Using telehealth in the management of Diabetes

### Diabetes key facts

- One in four Australian adults over the age of 25 have either diabetes or pre-diabetes <sup>1</sup>
- In 2015, Australian Diabetes Council expects the number of people with diagnosed diabetes to total approximately 4.6 million <sup>1</sup>
- The total financial cost of type 2 diabetes is estimated at \$10.3 billion <sup>2</sup>
- Up to 60% of cases of type 2 diabetes can be prevented <sup>2</sup>

### Using telehealth in the management of diabetes

A comprehensive diabetes care program which incorporates telehealth provides a key enabler in the improvement in the patient's health and well being, as well as facilitating a reduction in hospital admissions, emergency room visits and supporting early discharge.

Telehealth enables individuals to manage their diabetes effectively in their daily life and can result in early diagnosis of health related problems, empowering patients to take a more active role in their care. The collection of vital sign data, in addition to the answers to symptomatic health interview questions supports clinical staff when evaluating the patient on a regular basis.

Sources and further reading

1. <http://www.australiandiabetescouncil.com/About-Diabetes/Quick-facts.aspx>
2. <http://www.diabetesaustralia.com.au/Understanding-Diabetes/Diabetes-in-Australia/>

### Measuring vital signs and health interview questions

Recommended medical devices which measure the required vital sign data for diabetes patients include glucometer, blood pressure monitors, weight scales and pulse oximeters.

Health interview questions are answered which give an overview of how the patient is feeling and are based on established clinical guidelines (NICE, Map of Medicine) and have been clinically verified by health professionals. Once the patient takes their measurements and completes the associated health interview questions the information is then automatically transmitted to the **icp triagemanager** clinical software platform which supports validation of data, monitoring of health status and triaging.

### Signs and symptoms associated with diabetes

Patients with diabetes often have different symptoms depending on their type of diabetes. Type 1 diabetes develops if the body cannot produce insulin, type 2 diabetes is when the body can not produce enough insulin or the insulin produced does not work properly. The three main signs of both types of diabetes are:

- Polyuria (The need to urinate frequently)
- Polydipsia (Increased thirst & fluid intake)
- Polyphagia (Increased appetite)

Telehealth monitoring can help to stabilise a patients condition making it easier for the patient to adhere to treatments plans and changes in their lifestyle.



# Diabetes management

## Medication management

Regular analysis of telehealth data enables clinicians to see any changes to a patient's vital signs and relate it to the medication compliance questions on their health interview session.

The **mytelemedic** telehealth monitor can be configured to remind the patient both visually and verbally at the relevant time intervals to take their medication and provides appropriate advice dependent on patient responses to the health interview questions.

Telehealth can monitor, manage and regulate a patient's blood glucose levels, weight and promote medication compliance therefore controlling the peaks and troughs of this condition.

## Educational role

Telehealth is increasingly being used as an educational tool enabling patient self-management. Telehealth can be used as a way of reaching the less compliant diabetic with the ability to tailor a personalised monitoring schedule that encourages self care and highlights how their lifestyle and weight affects their diabetes on a daily basis.

## Hypoglycaemia episode

Diabetics take insulin or certain diabetes medication and are at risk of having a hypoglycaemia episode. When a hypoglycaemia episode occurs, the person often experiences 'warning signs', which vary from feeling shaky, sweating, tingling in the lips, going pale, heart pounding, confusion and becoming unconscious. Through daily telehealth monitoring, patients learn to recognise their symptoms which brings them reassurance and reduces their anxiety levels whilst facilitating self-management.

## Anxiety management

Diabetic patients can be susceptible to increased anxiety and depression. Through daily telehealth monitoring, patients learn to recognise their symptoms which brings them reassurance and reduces their anxiety levels helping improve their quality of life.

## Tele-coaching and education

Once the patient's condition has stabilised, they are more

receptive to coaching and education. By providing the right information and coaching patients can learn to self-manage their diabetes. It encourages a more proactive relationship with health professionals, where the patient understands what to ask when speaking with health professionals.

## Telehealth solutions

The recommended telehealth medical devices that monitor vital signs and support self-management for a diabetic patient include:

- Glucometer
- Pulse oximetry
- Blood pressure monitor
- Diabetes health interviews and quality of life surveys

### Diabetes package



## Telecare solutions

In addition, patients can greatly benefit from a telecare service which consists of a Tunstall Connect+ home alarm and a range of appropriate sensors which are linked to a 24/7 monitoring service, enabling patients to access help and support at any time of the day or night.

### Tunstall Connect+ and pendant



## Telehealth and telecare supported evidence

The Tunstall Healthcare Group has case studies which can help explain best practice for the delivery of care to diabetic patients using telehealth and telecare. Check online for case studies on West Lothian and others.

[www.tunstallhealth.com/casestudies](http://www.tunstallhealth.com/casestudies)

**For more information call 1800 611 528.**

**Tunstall**

 **icp**  
integrated care platform

[www.tunstallhealthcare.com.au](http://www.tunstallhealthcare.com.au)

Tunstall is a founder member of the Continua Health Alliance

Our policy of continual development means that product specification and appearance may change without notice.

Tunstall does not accept responsibility for any errors and omissions contained within this document.

© 2010 Tunstall Group Ltd. ® TUNSTALL is a registered trademark.

icp integrated care platform, mymedic and icp triagemanager are trademarks of Tunstall Healthcare Group.

A member of the Tunstall Healthcare Group Limited.

[www.tunstallhealthcare.com.au](http://www.tunstallhealthcare.com.au) 1/56 Lavarack Ave, Eagle Farm Queensland 4009 Australia

Tel (07) 3637 2200 Fax (07) 3637 2255 Free call in Australia 1800 611 528

9/2/11 MK-DS-AU-015-010

  
Continua  
HEALTH ALLIANCE

  
BSI  
FM12477