



# Heart failure management



## Using telehealth in the management of Heart Failure

### Heart failure key facts

- Approximately 300,000 Australians are believed to suffer from heart failure or chronic heart failure at any one time, and at least 10% of Australians aged over 65 years will develop the condition <sup>1</sup>
- The associated total economic cost of heart failure is \$17.9 billion in 2009 <sup>2</sup>
- Coronary heart disease is one of the major causes of morbidity in Australia and the largest single cause of death <sup>2</sup>
- Heart failure is associated with significantly reduced physical and mental health, resulting in a markedly decreased quality of life <sup>3</sup>

### Using telehealth in the management of heart failure

A comprehensive heart failure care program which incorporates telehealth provides a key enabler in the improvement of the health and well being for patients, as well as facilitating a reduction in hospital admissions, emergency room visits and supporting early discharge.

Telehealth enables individuals to manage their heart failure effectively at home and can result in early diagnosis of unforeseeable 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: [www3.heartfoundation.org.au/Heart\\_Information/Heart\\_Conditions/Heart\\_Failure/Pages/default.aspx](http://www3.heartfoundation.org.au/Heart_Information/Heart_Conditions/Heart_Failure/Pages/default.aspx)

2: "The economics cost of heart attack and chest pain" Access Economics June 2009

3: [www.emedicinehealth.com/congestive\\_heart\\_failure/article\\_em.htm](http://www.emedicinehealth.com/congestive_heart_failure/article_em.htm)

### Measuring vital signs and health interview questions

Recommended medical devices which measure the required vital sign data for heart failure patients include pulse oximeters, weighing scales, ECG monitors and blood pressure monitors.

Health interview questions are answered which give an overview of how the patient is feeling, 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 heart failure

Although it affects people in different ways, those with heart failure often have symptoms of fatigue, shortness of breath and swelling from fluid retention. Telehealth can identify these important signs and symptoms allowing health professionals to proactively provide preventative measures, such as changing medication, which may prevent a hospital admission. Telehealth monitoring will help to stabilise a patient's condition making it easier for the patient to adhere to treatment plans and changes in their lifestyle.



# Heart failure 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. Medication reminders from the **mytelemedic** monitor encourage medication compliance.

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.

## Weight and water retention management

By tracking a patient's weight and oxygen saturation levels, the **icp triagemanager** clinical software can track changes outside the patient's set parameters. Should a patient's weight increase quickly and their oxygen saturation level reduce, the health professional will be alerted to the changes and can initiate proactive medication management. By changing the patient's dose of prescribed diuretics and monitoring the treatment remotely, the patient's health can be stabilised and an unplanned hospital admission may be avoided.

## Anxiety and stress

Heart failure patients can be susceptible to increased anxiety and stress. Through daily telehealth monitoring, patients learn to recognise their symptoms which brings them reassurance and reduces their anxiety levels, helping to 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 condition. 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 and sensors that monitor vital signs and self-management for a Heart Failure patient include:

- Pulse oximetry
- Blood pressure monitor
- Weighing scales
- Heart failure health interviews and quality of life surveys

[CHF 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](#)



## Telehealthcare supported evidence

Tunstall Healthcare has numerous case studies which can help demonstrate best practice for the delivery of care to heart failure patients using telehealth. Check online for case studies on Bristol, Orchard Medical Centre, NHS Blackpool and Blackpool Vitaline and NHS Nottingham.

[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-013-010

  
Continua  
HEALTH ALLIANCE

  
BSI  
FM12477