



# Sick Day Management



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**Practice Nurse Education Series**  
**Session 3**  
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# Session objectives

- Discuss why is it important to discuss sick day management with people with diabetes
- Identify the aims of sick day management plan
- Discuss sick day management key messages to be given to patients
- Review the sick day management plan
- Identify when to discuss sick day management

## ‘Sick days’

- Refer to periods of minor inter-current illness, usually of up to 1 to 4 days’ duration, that require changes to the person’s usual diabetes self-management practices.’ (ADEA, 2016 p2)
- Any form of illness

# Infection and people with diabetes

Infection and stress hormones:

- Increases risk of acquiring infection.
- Increases chance of infections spreading quickly.
- Increases risk of unusual infections.
- Increases risk of infections from organisms that are not normally pathogenic.
- Poor response to antibiotic therapy

(ADEA, 2016)

# Sick Day Management

Aims to avoid:

- Diabetes ketoacidosis (DKA, less common in people with T2 diabetes)
- Hyperglycaemic hyperosmolar state (HHS in T2 diabetes)
- Hypoglycaemia
- Reduce hospitalisations
- Reduce illness related complications
- Enhance recovery

# Potentially life threatening complications

- DKA**
- common in people with Type1 diabetes
  - BGL >15mmol/L, ketosis, acidosis
  - frequently 15- 30 years
  - SGLT2i- Euglycaemic Ketosis (T2 diabetes)
- HHS**
- Usually T2DM middle aged/older people
  - Infection/illness most common precipitating factor
  - Symptoms evolved over days to weeks
  - Dehydration
- HYPO**
- associated with nausea, vomiting/ diarrhoea
  - Pregnant women T1DM & T2DM/GDM IR

# What would you ask?

64 year old female with T2 Diabetes is ringing you for advice and they have been unwell since previous day. BGL is 18 mmol/L.



# Management

Blood glucose monitoring

2-4 hourly (illness likely to increase BGL except with vomiting)

Fluids and Food /CHO

- Keep drinking and eating if possible
- Not eating: replace with CHO for example: regular jelly, juice
- Rehydration: 1 cup every hour if BGL < 15 mmol/L - CHO fluids; If BGL > 15 mmol/L - Non sweetened fluids.

Ketones (if required)

Test ketones if BGL is > 15 mmol/L (esp Type 1) (capillary blood test preferably ) (SGLT2i medications)



# Management

Medication adjustment  
(aiming to treat hyperglycaemia)

- Continuing to take medication
- Adjustment to insulin
- Metformin- vomiting/dehydration (renal concerns)
- SGLT2i- euglycaemic DKA-ceased if not eating
- Sulphonylurea- hypo concerns

Additional meds

Insulin- supplemental doses every 4 hours

Precipitating causes

Why?

Seeking help

Who and when to call (easily accessible)  
Local hospital

**Table 5 - Carbohydrate containing fluids**

Type of fluid	Carbohydrate load per 100mls
Fruit juice	10g
Cordial 1 teaspoon of concentrate	10g/20ml
Soft drink	10g
Jelly	13g or 16g per half cup
Milk	5g
Oral rehydration solution	1.5g
Sports drink	6g
Icy pole	12g per stick
Calippo®	21g per tube
Frosty fruit®	21g per stick



# Carbohydrate free fluids include:

- Sugar-free/diet jelly.
- Sugar-free/diet/zero soft drink.
- Sugar-free/low-joule cordial.
- Water.
- Broth.
- ONLY for BGL > 15.0mmol/L ( ADEA 2016)



125–250 mls per hour

# When to go to hospital

- BGL > 15.0 mmol/L despite 2 supplemental insulin doses.
- Blood ketone levels > 1.5 mmol/L or urine ketone levels moderate/large and not decreasing following 2 doses of supplemental insulin.
- Signs of DKA or HHS such as vomiting, drowsiness, confusion, disorientation, hyperventilation, dehydration or severe abdominal pain.
- Persistent vomiting, > 4 hours, or becomes blood or bile stained.

# When to go to hospital

- Severe dehydration (symptoms may include increased thirst, dry mouth and swollen tongue, weakness, dizziness/fainting, palpitations, headache, confusion/delirium, inability to sweat, decreased or no urine output).
- Persistent hypoglycaemia.
- If the individual or support person(s) are unable to carry out the monitoring and surveillance required.
- If the diagnosis of the underlying illness is unclear.
- If physical or cognitive impairment occurs making the implementation of the sick day management plan impossible.

# Advice to people with diabetes

- Illness will most likely increase your BGL
- Test your BGL every 2-4 hours (day & night)
- Drink plenty of fluids
- Keep eating if you can
- If unable to eat normally, sip CHO containing fluids
- Keep taking your medication
- Seek help- If your BGL remains 15 or more for more than 12 hours and you are unable to take anything by mouth or you or your carer is worried

**CONTACT YOUR GP OR ATTEND EMERGENCY**

# What would you advise?

64 year old female with T2 Diabetes is ringing you for advice and they have been unwell since previous day. BGL is 18 mmol/L.



# Sick day discussion a higher priority

- On diagnosis
- Review the person's knowledge regularly
- Individualise and update regularly



2014



**CLINICAL GUIDING PRINCIPLES FOR SICK  
DAY MANAGEMENT OF ADULTS WITH  
TYPE 1 AND TYPE 2 DIABETES**

Technical Document

May 2014

Sick Day Management  
of Adults with Type 1 Diabetes

CONSUMER RESOURCE

December 2014



Your trusted partner in diabetes care

Sick Day Management  
of Adults with Type 2 Diabetes

CONSUMER RESOURCE

December 2014



Your trusted partner in diabetes care

NAME:

To consider	What to do	Agreed special actions
1. When to use the Plan		
2. What to do if my support person(s) cannot be contacted	<i>If no one available, seek medical assistance</i>	
3. Glucose lowering medications	<i>What to continue</i> <i>What to start</i> <i>What to stop</i>	
4. Food & Fluids	<i>How much</i> <i>How often</i> <i>What type</i>	
5. Insulin	<i>What to increase or decrease</i> <i>What to start or stop</i>	
6. Low glucose levels		
7. Other medical conditions/emergency plans		
8. Seeking supervised medical care		<i>24 hour medical team contact details, including out of office hours/ weekend/public holidays</i>
9. Where to go in an emergency		<i>If the plan is not effective or you can't contact your medical team and you are concerned</i>
10. Other, including education programs available for you and your support person(s)		

# Reference

- Australian Diabetes Educators Association. Clinical Guiding Principles for Sick Day Management of Adults with Type 1 and Type 2 Diabetes. Technical document. Canberra: Australian Diabetes Educators Association; 2016.



# Travel and Diabetes

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# Travelling and people with diabetes

- Adequate supply of medications and equipment, as well as spares in case of damage (Insulin, tablets, test strips, pen needles/syringes, lancets, BGL meter, hypo treatment)
- Insulin is packaged and cool at  $< 25^{\circ}\text{C}$
- Medical ID (Name, condition, allergies)
- Ensure Medicare/NDSS/Pension cards are with them when travelling
- Hypo kit/Sick day management kit

# Travel by Air

- Letter from GP or specialist stating all medical conditions, medications, equipment needed
- Medical equipment used (Insulin pump, BGL meter, pen needles/syringes, insulin pens, lancet devices, test strips, batteries, sharp container, hypo kit)
- Pack medications/equipment in carry-on luggage
- Abide by Airline Regulations involving medications and medical equipment (All medications in original packaging, medical letter)
- Consult with your Airline BEFORE flight

# International Travel

- Stress from travel may affect BGLs, more frequent BGL monitoring required
- Different countries use different values for BGL readings (mmol/L or mg/dL)
- Make a plan with your GP in relation to time zones and medication administration times
- Climates/temperatures may affect insulin (insulated bag)
- Information for next of kin or person to contact in an emergency & make ensure the patient has an accurate list of health conditions and medications
- Travel Insurance



# Travelling and Sick Day Management

- Additional preparation especially when travelling to remote areas or overseas
  - Additional medication (diabetes and non-diabetes), equipment, vaccinations, documentation, relevant contact details
- Sick day travel kit( spare metre, strips, prescription med/insulin, travel sickness tablets, anti-emetics/diarrhoea, thermometer
- Understanding of risk minimisation strategies i.e. food safety and hygiene principles
- Reciprocal health care agreements, travel insurance

## Reference

Dunn K, Diabetes Sick Day Management, Travel, Foot Care & Driving PPT, Fairfield Hospital

# The National Diabetes Services Scheme (NDSS)

NDSS -available to people diagnosed with diabetes who hold an Australian Medicare Card/reciprocal health care

- NDSS aims to enhance capacity to understand and manage their life with diabetes, to reduce the impact of their diabetes and improve overall health outcomes.

People with diabetes who register for the NDSS can :

- access patient resources
- access to subsidised products to make diabetes management more affordable.

# The National Diabetes Services Scheme (NDSS)

**ndss**  
national diabetes services scheme

## Registration Form

The National Diabetes Services Scheme (NDSS) is an Initiative of the Australian Government administered with the assistance of Diabetes Australia.

**d** diabetes  
australia

### ABOUT THIS FORM

This form lets you register for the National Diabetes Services Scheme (NDSS) and the National Gestational Diabetes Register (NGDR).

#### What is the National Diabetes Services Scheme (NDSS)?

The NDSS delivers education and information services to people with diabetes. It also provides a range of diabetes products at a subsidised cost.

It is an initiative of the Australian Government administered with the assistance of Diabetes Australia. Registering for the NDSS is free.

#### What is the National Gestational Diabetes Register (NGDR)?

The NGDR is a program within the NDSS that provides education and information for women with gestational diabetes.

The NGDR aims to help these women reduce their risk of developing type 2 diabetes and manage their health into the future.

#### Who should fill out this form

You can use this form if you:

- live in Australia, and
- have a current Medicare Card, Department of Veterans' Affairs (DVA) Gold Card, DVA White Card specific to diabetes, or
- are a resident of a country with which Australia has a Reciprocal Health Care Agreement (and not visiting on a student visa, if a resident of Finland, Malta, Norway or the Republic of Ireland) and
- have been diagnosed with type 1, type 2 or gestational diabetes, or
- have been diagnosed with diabetes caused by a genetic defect, pancreatic disease, hormonal abnormality or exposure to certain drugs and chemicals.

A primary guardian or carer needs to fill out part of this form if the person with diabetes:

- is under 15 years old, or
- is 15 or over and receives ongoing care.

After those details are complete, the form must be certified by a registered medical practitioner such as your doctor, endocrinologist or obstetrician, a nurse practitioner, or a credentialed diabetes educator.

#### How to fill out this form

1. Fill out page 1 and the left-hand side of page 2, **printing** clearly with a black or blue pen.
2. If the person with diabetes is under 15 years old or is an adult receiving ongoing care, a primary guardian or carer needs to complete the "Guardian or carer" section starting on page 2.
3. Take the form to a registered medical practitioner, nurse practitioner or credentialed diabetes educator and ask them to certify it.
4. Send the certified form to the NDSS:  
Post: GPO Box 9824 in your capital city.  
Fax: 1300 536 953

# The National Diabetes Services Scheme (NDSS)

To register

- diagnosis Diabetes( all types)
- hold Medicare Card/reciprocal health care
- confirmed by registered medical officer, endocrinologist, obstetrician, Credentialed Diabetes Educator or registered Nurse Practitioner
- Send to an NDSS agent

# NDSS- Subsidises

- BG testing strips (restrictions apply to people with type 2 diabetes who do not use insulin)
- urine testing strips
- free insulin syringes and pen needles (if you require insulin or an approved non-insulin injectable medication)
- insulin pump consumables (for approved persons with type 1 diabetes and gestational diabetes)
- continuous glucose monitoring products (for eligible and approved people with type 1 diabetes)

# NDSS- Subsidises

- Do not subsidise Insulin, meters, lancets and Ketone strips
- People with T2 diabetes not on insulin-only 6 months strips

## Limitation for a period of 180 day (6months)

- 900 strips and/or
- 1200 sharps (needles/syringes)
- 90 cannulas and/or (only for T1 diabetes)
- 90 reservoirs/cartridges (only for T1 diabetes)

Further strips can be obtained with MO letter

# NDSS- Subsidises

Subsidy increased with :

- Health Care card
- Pensioner concession card
- Safety Net card
- Department of Veterans' Affairs card.



# Trouble Shooting

## **Blood Glucose Monitoring**

- frequency of testing
- Time of testing
- Monitor- age, batteries, cold/hot,
- Strips: expired , wrong strip, handling of strips
- Lancet:

## **HbA1C:**

- Depending on age
- Affected by other pathologies
- <6.0% ( risk of frequent hypos)

# Trouble Shooting

## **Injections:**

- device
- Needles (wrong size, single use),
- Technique
- Injection site: lipohypertrophy, rotation, dose

## **Hypoglycaemia:**

- Frequency/time of the day
- S& S (at what BGL)
- Treatment (knowledge and practice), time of the day,
- Causes: alcohol, mismatch med/ food/exercise
- Risk factors and prevention
- Safe Driving

# Trouble Shooting

## **Insulin**

- Profile
- Storage
- expire and discard date,
- Resuspension
- Correct timing

## **Oral Medication**

- Action
- Time to take them

# Acknowledgment

- Slides Prepared by Cathy Wilson & Therese Fletcher 2018
- Presentation updated and reviewed by Cecilia Astorga 2019