Do people with diabetes change their self-management behaviour whilst on extended overseas holidays?

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## Background

- People with diabetes accessing services at Northern Health (NH) come from a wide cultural background.
- As per the Australian Bureau of Statistics 2016 census data, more than 40% of the population living in NH catchment area are born overseas.
- It is not uncommon for patients attending NH to travel to their country of origin every 1-3 years, often staying several weeks to months in duration.

# General education for patients preparing for overseas travel can include

- Travel insurance
- A letter for customs
- Carrying sufficient medications and diabetes consumables
- Cool packs for injectable medicines
- Education on sick day management



## Clinical guidelines

- Clinical guidelines exist to support clinicians to implement these tasks, but do not address the possible challenges that people with diabetes could encounter when overseas for longer periods of time.
- Anecdotal information previously provided by patients, has suggested that many have instigated a number of changes with respect to their daily self-management, not previously suggested by the diabetes team.
- A literature review revealed an absence of studies exploring changes to diabetes self-management occur during prolonged overseas travel.

## Study aims

- To identify whether people with type 1 and type 2 diabetes make changes to their diabetes selfmanagement behaviours (and the decision making process for these changes), whilst overseas for an extended period of time.
- An extended period of time for the purpose of this study was defined as four weeks or more.

## Methodology

- An explorative qualitative pilot study using semi-structured, face-to-face interviews was conducted with 8 participants who had travelled to their country of origin in 2017, for more than 4 weeks duration.
- A culturally sensitive open ended questionnaire was developed and used, focusing on 5 key areas of diabetes selfmanagement: diet, physical activity, blood glucose monitoring, stress and glucose lowering medicine (GLM) use.
- Interpreters were utilised to obtain consent and interviews as needed.
- Thematic analysis of this data was undertaken.

## Results: demographic data

Participant	Age	Sex	Diabetes Type	Duration of diabetes	Diabetes Treatment	Country travelled	Duration of holidays
1	54	М	T2DM	20 yrs	Oral GLMs	Egypt	12 weeks
2	45	F	T2DM	7 yrs	Oral GLMs	Turkey	11 weeks
3	57	M	T2DM	12 yrs	Oral GLMs / insulin	Lebanon	24 weeks
4	51	F	T2DM	11 YRS	Oral GLMs / insulin	Lebanon	10weeks
5	43	M	T2DM	15 yrs	Oral GLMs / insulin	Turkey	24 weeks
6	55	M	T2DM	20 yrs	Oral GLMs / insulin	Turkey	10 weeks
7	69	M	T2DM	18 yrs	Oral GLMs / insulin	Turkey	12 weeks
8	56	M	T2DM	12 yrs	Oral GLMs / insulin	Lebanon	8 weeks

## Results: HbA1c

Participant	HbA1c pre departure	HbA1c on return
1	12.2% *	7.7%
2	8.6 %	8%
3	9.3%	9.2%
4	9.7%	9.2 %
5	11.5 %	Not repeated
6	9.3%	9.1%
7	8.3 %	10.9 %
8	9.4%	9.2%

#### Results

- 7 participants reported taking their GLMs including injectables with no change in their usual regimen.
- Reasons to maintain their pre-departure GLMs regimen included:
  - "I don't want to get sick in an overseas country"
  - "I don't want to ruin the holidays"
- Reasons to bring sufficient GLMs for the duration of their trip included:
  - "Medicines are cheap in Australia with PBS / health care card"
  - "Better quality here" (Australia)

#### Results

- 6 participants self reported performing very limited SMBG for reasons that included:
  - Relying instead on their 'feelings' for hypoglycaemia or hyperglycaemia
  - Fear of criticism
  - Feeling better
  - "I don't want others to know that I have diabetes".
- 6 respondents reported very different dietary intake due to:
  - Availability of very different and more 'traditional' foods
  - Visiting relatives / friends often
  - Eating out very often.



#### Results

- All 8 participants were at risk of hypoglycaemia, none could recall experiencing a severe hypo whilst overseas.
- 5 participants reported increased physical activity:
  - Increased walking due to limited accessibility to transport
  - Better' weather.
- 7 respondents reported a reduction in their stress levels, examples cited included:
  - "No house chores"
  - "No work stress"
  - "Good food and good company with friends and relatives".



#### In conclusion

- Overseas travel can be an opportunity to engage people with diabetes in a different way with respect to their self-management behaviors.
- Some of these changes undertaken could be viewed as negative ie a reduction in SMBG testing.
- Generally our clients report continuing to take their GLMs, increased physical activity and reduced levels of stress.



#### In conclusion

- However focusing on positive changes and outcomes such as stable HbA1c, no episodes of acute illness/hospitalisation, severe hypoglycaemia, continuing their usual GLM regimen and wellbeing are important components to ongoing review and support – especially in a cohort who will again travel back to their country of origin.
- Education and support needs to be individually tailored for overseas travel.

### References

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# Thank you . Questions ?

