

Diabetologia

Up front



Competition for publication in Diabetologia continues to grow, and less than 20% of papers are accepted. Of all the high-quality papers that appear in this month's issue I want to draw your attention to four articles that I think stand out in some regard and are very interesting. The articles are summarised here. Our publisher, Springer, has kindly made the full text of each of these papers freely available.

I hope you enjoy reading them!

Hindrik Mulder, Editor

Diabetes and the COVID-19 pandemic

Kamlesh Khunti, Jonathan Valabhji, Shivani Misra

People living with diabetes are at greater risk of hospitalisation and death following severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. In addition, the coronavirus disease-2019 (COVID-19) pandemic has disrupted healthcare delivery for people living with diabetes. In this issue, Khunti et al (<https://link.springer.com/article/10.1007/s00125-022-05833-z>) summarise the evidence on the acute impact of COVID-19 on people with diabetes, including data on the occurrence of new-onset diabetes and diabetic ketoacidosis, and the wider impact of the pandemic on healthcare services. The authors conclude by presenting recommendations for prioritising patients with diabetes during the pandemic recovery phase. The figures from this review are available as a downloadable [slideset](#)

Global trends in the incidence of hospital admissions for diabetes-related foot disease and amputations: a review of national rates in the 21st century

Peter A. Lazzarini, Susanna M. Cramb, Jonathan Golledge, Jedidiah I. Morton, Dianna J. Magliano, Jaap J. Van Netten.

Diabetic foot disease is a leading cause of hospitalisation and amputation. In this issue, Lazzarini et al (<https://doi.org/10.1007/s00125-022-05845-9>) review published data to determine

the latest trends in global hospitalisation and amputation rates for diabetic foot disease. The authors provide evidence that global trends in hospitalisation rates for major amputations are largely decreasing but trends in minor amputations and diabetic foot disease are inconsistent. Further, they highlight that hospitalisation rates for diabetic foot disease without amputation are substantially higher than rates for diabetic foot disease with amputation and higher than rates for most other major diabetes complications. However, they suggest the need for caution in the 'global' interpretation of these findings because of the high heterogeneity of published data and limited data from low- and middle-income countries. The authors conclude that global reporting standards are needed to better interpret, monitor and address the large global burden of hospitalisation and amputation caused by diabetic foot disease.

Outdoor light at night in relation to glucose homeostasis and diabetes in Chinese adults: a national and cross sectional study of 98,658 participants from 162 study sites

Ruizhi Zheng, Zhuojun Xin, Mian Li, Tiange Wang, Min Xu, Jieli Lu, Meng Dai, Di Zhang, Yuhong Chen, Shuangyuan Wang, Hong Lin, Weiqing Wang, Guang Ning, Yufang Bi, Zhiyun Zhao, Yu Xu

Artificial lighting has increased significantly during recent decades and detrimental effects of artificial light at night (LAN) exposure on metabolic health have been reported. However, it is unclear whether exposure to outdoor artificial

LAN is associated with glucose homeostasis and diabetes. In this issue, Zheng and Xin et al (<https://doi.org/10.1007/s00125-022-05819-x>) used data from a national survey of the general population in China and report that chronic exposure to outdoor LAN was positively associated with blood glucose levels, insulin resistance and diabetes prevalence and inversely associated with beta cell function. The authors highlight that, considering the acceleration in urbanisation and growing number of domestic migrants arriving in large cities, the number of people with light pollution-related diabetes is projected to increase. They conclude that effective prevention and intervention policies should be developed to protect people from the adverse health effects of light pollution at night.

Importance of beta cell mass for glycaemic control in people with type 1 diabetes

T. J. P. Jansen, M. Brom, M. Boss, M. Buitinga, C. J. Tack, L. A. van Meijel, B. E. de Galan, M. Gotthardt

The importance of residual beta cells for glucose control in people with type 1 diabetes is not yet fully understood and

measurement of human beta cell mass is challenging. In this issue, Jansen et al (<https://doi.org/10.1007/s00125-022-05830-2>) report the novel use of an imaging method, exendin PET, to measure beta cell mass in a non-invasive manner. The authors demonstrate that beta cell mass was markedly increased in people with type 1 diabetes and relatively stable glycaemic control than in people with type 1 diabetes and high glucose variability. They suggest that residual beta cells may therefore play an important role in glycaemic stability in people with type 1 diabetes. The authors highlight that their finding indicates the need for effective therapies aimed at preserving viable beta cells and therapies that can restore or improve beta cell functionality. They conclude that exendin PET may have a role to play in the detection of these residual beta cells and could aid in the selection of the most suitable treatments.

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