**Diabetic Medicine June 2016**

**Headlines**

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| The role of ‘omics’ and biomarkers in personalising care for people with diabetes | Improving decision making in the clinic |
| Bringing a drug to the clinic | Diabetes care in Peru |
| Reaching disadvantaged populations | Culturally competent primary care diabetes services |

Artwork

**Title: Capsules with faces**

[](http://www.sciencephoto.com/image/704778/large/F0127300-Capsules_with_faces,_Illustration-SPL.jpg)

**Caption: Capsules with faces**

**F012/7300**

**Free articles**

1. Editorial
2. All invited reviews and research paper for special issue:

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| DME13075 | DME-2015-00995 | Pearson,Ewan | Personalized medicine in diabetes: the role of ‘omics’ and biomarkers |
| DME13066 | DME-2015-00827.R1 | Carr,Richard D | Drug development from the bench to the pharmacy: with special reference to dipeptidyl peptidase 4 inhibitor development |
| DME13088 | DME-2015-00972 | Ruddock,Jacinth | Innovative Strategies to Improve Diabetes Outcomes in Disadvantaged Populations |
| DME13090 | DME-2015-00970 | O'Connor,Patrick J | Outpatient Diabetes Clinical Decision Support: Current Status and Future Directions |
| DME13xxx | DME-2015-00906 | Serrano,V | Shared decision-making in the care of individuals with diabetes |
| DME13099 | DME-2015-00889.R1 | CÁRDENAS,MARIA KATHIA | Delivery of Type 2 diabetes care in low- and middle-income countries: lessons from Lima, Peru |

**Editorial**

**Personalised medicine for diabetes: a special issue**

For many centuries, physicians have strived to provide personalised care for their patients in the hope that their treatments will deliver the maximum benefit with minimal side effects. Although the diseases may be the same, how an individual responds to these illnesses is unique and consequently treatment must be tailored accordingly. With the advent of ever more sophisticated diagnostic techniques and therapies, our ability to personalise treatment has never been better.

In diabetes care, a recognition of individualised care has made a resurgence. Prior to the last decade or two, there was little guidance to help healthcare professionals and people with diabetes in their treatment choices and so there was much freedom for clinicians and people with diabetes. There was perhaps too much art and too little science involved resulting in variable diabetes outcomes in different locations.

Then came several initiatives to improve the quality of diabetes care and reduce geographical variation in diabetes related morbidity. While overall standards improved, a criticism of these guidelines and reimbursement mechanisms was that they provided rigid protocol driven treatment pathways with limited scope for personalisation; many fared worse as inappropriate decisions about aggressive glucose lowering lead to hypoglycaemia. The pendulum, led by the European Association for the Study of Diabetes and American Diabetes Association guidelines, is swinging back now with much greater emphasis on choosing the right treatment for the right person at the right time. But, how do we implement this without reverting to previous status quo?

The month’s Diabetic Medicine contains a special issue of five invited reviews and an invited research paper devoted to delivering personalised care for people with diabetes. In the first article, Pearson describes how our understanding of the aetiology and pathophysiology of diabetes and genetic predictors of treatment response is moving rapidly and the ways in which we can use these new insights to improve treatment choices (1). Carr then discusses how new therapies are brought to our clinics, by drawing on the example of the development of DPP-4 inhibitors, which arose from a clear understanding of a distinct pathophysiology in type 2 diabetes (2).

People with diabetes form a heterogeneous group and it is well recognised that diabetes affects disadvantaged populations disproportionately. In the review by Ruddock and colleagues, the healthy inequality experienced by those living in low- and middle- income countries and certain ethnic and socio-economic groups is explored together with initiatives to reach into these communities to improve their outcomes (3).

Diabetes places a huge burden of self-care management of those living with diabetes and we need to support our patients better to achieve this. The next two reviews looks at two aspects of this facet of care. O’Connor and colleagues describe how we can improve out-patient care decisions by making use of better support systems that prioritize care recommendations, improve communication of treatment-relevant information to people with diabetes, and integrate patient-reported information including data from remote sources (4). Serrano and colleagues then teach us how to improve shared decision making in the clinic by considering each individual’s personal, social, and biomedical situation as well as their values (5).

The final article in the special issue describes the specific challenges of providing diabetes care in Peru where low political commitment and several system-level health service barriers mitigate against high quality diabetes care (6).

References

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| --- | --- | --- | --- | --- |
| 1 | DME13075 | DME-2015-00995 | Pearson,Ewan | Personalized medicine in diabetes: the role of ‘omics’ and biomarkers |
| 2 | DME13066 | DME-2015-00827.R1 | Carr,Richard D | Drug development from the bench to the pharmacy: with special reference to dipeptidyl peptidase 4 inhibitor development |
| 3 | DME13088 | DME-2015-00972 | Ruddock,Jacinth | Innovative Strategies to Improve Diabetes Outcomes in Disadvantaged Populations |
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