

Free e-learning resource

Heart failure and type 2 diabetes

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Mark, a 59-year-old with type 2 diabetes for 7 years, came to see his GP reporting increased breathlessness on exercise, ankle swelling and general fatigue (but no chest pain) over the previous 2 months. Examination revealed pulse 78 beats/min regular, blood pressure 132/67 mmHg, heart sounds normal with no added sounds or murmurs, bilateral inspiratory crackles on the lung bases, and bilateral ankle oedema.

What do you think is the most likely explanation for Mark's symptoms?

Jane, a 66-year-old with type 2 diabetes for 9 years, reported gradually increasing shortness of breath and fatigue when exercising, such that she was struggling to keep up with her walking group. She is taking metformin, pioglitazone, semaglutide, atorvastatin, ezetimibe, losartan and amlodipine. Investigations suggested a cardiac cause of breathlessness, likely heart failure. She was referred to the cardiologist for further assessment.

Are there any changes in medication you would consider making at this stage?

By working through this interactive case study, we will consider the following issues and more:

- The different categories of heart failure.
- Investigations and how to interpret them.
- Which medications, including those for diabetes, can improve heart failure prognosis.
- Which diabetes medications should be avoided or used cautiously in people with heart failure.

D *Diabetes & Primary Care's* series of interactive case studies is aimed at all healthcare professionals in primary and community care who would like to broaden their understanding of diabetes.

These two cases cover the different categories of heart failure and the latest recommended therapies, as well as considering which diabetes drugs should be avoided or used with caution.

The format uses typical clinical scenarios as tools for learning. Information is provided in short sections, with most ending in a question to answer before moving on to the next section.

Working through the case studies will improve our knowledge and problem-solving skills in diabetes care by encouraging us to make evidence-based decisions in the context of individual cases.

Readers are invited to respond to the questions by typing in your answers. In this way, we are actively involved in the learning process, which is hopefully a much more effective way to learn.

By actively engaging with these case histories, I hope you will feel more confident and empowered to manage such presentations effectively in the future.

David Morris, Undergraduate Clinical Tutor, Keele University; and retired GP and Specialist Doctor in Diabetes

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Heart failure and type 2 diabetes and other interactive case studies are all [available here](#)