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## Who should provide preconceptional care?

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### INTRODUCTION

The simple answer to the question of ‘Who should provide preconceptional care?’ is that there is a role for every healthcare professional who comes into contact with any woman of childbearing age to provide appropriate information, support and care that relates to the specific needs and desires of the woman. In the UK, much preconceptional care for women with established medical conditions which impact upon pregnancy (e.g. diabetes, epilepsy, renal disease, etc.) has traditionally been viewed as the responsibility of the secondary service providing care for the underlying medical condition. However, as many pregnancies are not ‘planned’ and women may not be attending secondary care for regular follow-up, it is vital that preconception information and support be seen as everyone’s responsibility.

### TRADITIONAL PRECONCEPTIONAL CARE MODEL WITH DIABETES AS THE EXAMPLE

It is well known that women with type 1 and type 2 diabetes have an increased risk of adverse pregnancy outcomes, including miscarriage, fetal congenital anomaly and perinatal death<sup>1</sup> (see Chapter 5). There is a significant relationship between adverse outcome of pregnancy and poor glycaemic control in early pregnancy in women with type 1 diabetes, with a fourfold increase in adverse outcomes, a

fourfold increase in spontaneous abortion and a ninefold increase in major malformation in women with a glycaated hemoglobin (HbA1c) above 7.5% at booking in one UK study<sup>2</sup>. At the same time, the infants of women with type 1 diabetes who attend multidisciplinary pre-pregnancy counseling show significantly fewer major congenital malformations compared to infants of non-attending mothers<sup>3</sup>. The 2005 CEMACH found that only 38.2% of women with type 1 diabetes had pre-pregnancy counseling documented in their notes and that a similar number (40%) had a pre-pregnancy glycaemic test<sup>4</sup>. Other disturbing results in this report included an association between poor pregnancy outcome and unplanned pregnancy (odds ratio (OR) 1.8), and no contraceptive use in the 12 months prior to pregnancy (OR 2.3) with 40% of women with type 1 diabetes not planning their last pregnancy<sup>1</sup>.

Pre-pregnancy counseling clinics have been traditionally been provided by adult diabetes services in secondary care. These clinics are usually staffed by diabetes specialist nurses (DSNs) and midwives. Women routinely followed up in the adult secondary care diabetes services should be receiving general preconceptional advice *when they attend for regular review of their diabetes* and be referred for more detailed preconceptional counseling and care at the pre-pregnancy clinic when they say that they are contemplating pregnancy.

Given that we know that when diabetes is in good glycaemic control at the time of conception the risk of adverse outcomes is reduced,

that attending a preconceptional counseling clinic diminishes adverse outcomes, and that planning a pregnancy is associated with better outcomes, it is logical to ask why only 40% of pregnancies in women with diabetes are reported as being planned and only 38% have prepregnancy counseling documented in their notes?

### **WEAKNESSES IN THE TRADITIONAL SECONDARY CARE MODEL OF PRECONCEPTION CLINICS**

First and foremost, all parties concerned must recognize that the majority of pregnancies are unplanned. The dichotomy between ‘planned’ and ‘unplanned’ pregnancy is a concept widely recognized in health policy and health service provision, but it has long been recognized as being problematic<sup>5</sup>. The reason that it is ‘problematic’ is the fact that this arbitrary and conventional division often fails to reflect the myriad of reasons that constitute the background to women becoming pregnant<sup>6</sup>. In a qualitative study of 15 women with type 1 diabetes who described 40 pregnancies, a positive step towards becoming pregnant was taken in 23 pregnancies but not in the remaining 17<sup>5</sup>. This study suggested that the intention to become pregnant needs to be considered as a continuum between planned and unplanned, with the majority of pregnancies falling somewhere in between planned and unplanned. The study concluded that formal preconception clinic sessions are unlikely to have an impact on most pregnancies for women, as attendance *assumes* some prior consideration of becoming pregnant<sup>5</sup>.

Second, preconception clinics may actually cause anxiety in some attendees and thus discourage attendance. In the qualitative study cited above, three women (out of the 15 with type 1 diabetes interviewed) described attending preconceptional counseling and the anxiety it provoked. All three spoke about the fear

they experienced after attending preconceptional counseling and that after attendance they found it difficult to make the decision to become pregnant. Clearly, the risks of pregnancy to the women and the baby need to be explained, but this information can lead to anxiety and fear. More research is needed to assess the potential for unintended adverse effects of preconceptional counseling on women’s psychological wellbeing, and methods found to provide accurate and helpful information to women without inducing anxiety and fear.

Third, many women are being diagnosed with type 2 diabetes in childbearing age (often due to obesity), and such women may be being looked after exclusively in primary care. In fact, in some areas of the world there are as many women with type 2 diabetes becoming pregnant as there are women with type 1 diabetes, a huge difference from the situation 20 or so years ago, when pregnancy in diabetes was almost exclusively in women with type 1 diabetes. If women of childbearing age with type 2 diabetes are not being seen in secondary care, as is usual in many parts of the UK, they may not get referred into the secondary care-based preconceptional counseling clinics.

### **THE ROLE OF PRIMARY CARE IN PRECONCEPTIONAL CARE**

Primary care is in contact with women with pre-existing medical conditions who will benefit from preconception information, advice and care, through the provision of contraception, the prescription of repeat medications, and the treatment of acute illness. These contacts may be with a general practitioner (GP) or practice nurse. All such interactions can be used to reinforce important preconception information. It is important to have enough time in the consultation to give important preconception messages and to realize that it is important to take every opportunity to do so.

## **THE ROLE OF THE QUALITY AND OUTCOMES FRAMEWORK IN INCENTIVIZING PRIMARY CARE**

The quality and outcomes framework (QoF) is a 'pay for performance' initiative that was introduced on 1 April 2004 as part of the new GP contract. It linked part of a GP's income to the achievement of levels of process and intermediate outcome measures in 10 clinical areas. Achievement in these areas earns 'points' and points translate into income for the practice.

Pay for performance initiatives have been introduced in a number of countries in the world, but the QoF in the UK is the best developed and is the only one that publishes data on virtually all practices from every part of the country. Information from the QoF is published annually on the NHS information centre website<sup>7</sup> and is freely available to all, providing data at national, regional, primary care trust and practice level.

In the clinical area of diabetes, measures of process of care (e.g. recording of weight, blood pressure and appropriate blood tests) and measures of intermediate outcomes of care (e.g. having good glycaemic control as defined by a specific HbA<sub>1c</sub> level and good blood pressure control defined as a blood pressure at or below 140/80 mmHg) have shown increases year on year from 2004 to 2008. Outcomes such as those cited indicate that pay for performance measures in QoF have had value in incentivizing primary care to deliver defined process and intermediate outcomes. Given these facts, it may therefore be possible to encourage primary care to take on a role in delivering preconception information, support and care through the development of suitable QoF clinical indicators. In diabetes, such a new clinical indicator for QoF has been proposed for consideration (Dornhorst A, Pierce M, Gadsby R, personal communication August 2010). It said something along the lines of 'all women of childbearing age who are living with diabetes should have a record in their notes of

a discussion about preconceptional care issues at each annual diabetes review'. This proposed new indicator has been put into the National Institute for Health and Clinical Excellence (NICE) QoF clinical indicator development process for consideration in the 2011/2012 round.

## **THE ROLE OF NICE IN ENCOURAGING INVOLVEMENT IN PRECONCEPTIONAL CARE**

In the UK NICE produces guidelines on specific conditions. These guidelines contain recommendations that, although they are not technically mandatory for implementation, do provide clear statements of good practice that should be followed.

In 2008 NICE published its first guideline on Diabetes in Pregnancy<sup>8</sup>. It contains an entire chapter on preconceptional care with an extensive literature review of the subject and a series of recommendations which include:

- Guideline Recommendation 1.1.8.1 – Women with diabetes should be informed about the benefits of preconception glycaemic control at each contact with health care professionals, including their diabetes care team, from adolescence
- Guideline Recommendation 1.1.8.2 – The intentions of women with diabetes regarding pregnancy and contraceptive use should be documented at each contact with their diabetes care team
- Guideline Recommendation 1.1.2.1 – The importance of avoiding unplanned pregnancy should be an essential component of diabetes education from adolescence for women with diabetes.

The guideline also lists information about how diabetes affects pregnancy and how pregnancy affects diabetes. This is valuable information that needs to be conveyed to women with diabetes who are planning to become pregnant. If

these recommendations were carried out, they could play a significant part in reducing the adverse outcomes that are at present seen in the pregnancies women with diabetes.

### SUMMARY AND CONCLUSION

In the UK, preconceptional care for women with pre-existing medical conditions that can affect pregnancy has usually been undertaken by the secondary care service looking after the particular medical condition.

Using diabetes as an example, it is apparent that less than 50% of women actually receive pre-pregnancy counseling in secondary care for a variety of reasons.

The concept is advanced that every health-care professional consultation with such women should be used to convey preconception messages, including the importance of involving primary care teams.

Better primary care involvement in preconceptional counseling among diabetics in the UK could be incentivized using the quality and outcomes framework.

Recommendations from NICE guidelines provide clear statements of good practice that should be followed.

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