PCOS Audit Oct 16

PCOS

Polycystic ovarian syndrome is a condition caused by excess androgen activity, causing the ovaries to produce multiple cysts. It is diagnosed on the basis of 2 out of 3 criteria:

1. Clinical evidence of hyperandrogenism – hirsutism, acne, oligo- or amenorrhoea
2. Biochemical evidence of hyperandrogenism – raised free androgen index (raised LH/ FSH ratio >1 is now not considered so useful in the diagnosis but may be an indication of PCOS)
3. Typical appearances on U/S

PCOS may be considered to be part of the Metabolic syndrome, and increases the risk of developing Type 2 diabetes ; it is estimated that over 50% of women with PCOS have diabetes by the age of 40. (The literature did not break down how many of these women were of normal or near normal weight, compared to those who were obese / morbidly obese). It increases the risk of cardiovascular disease because of the association with hypertension and dyslipidaemia.

PCOS increases the risk of obstructive sleep apnoea. It also increases the risk of endometrial hyperplasia and endometrial cancer in those women who are oligomenorrhoeic (<4 menses annually).

NICE guidance on PCOS

Diabetes and Cardiovascular risk prevention

1.NICE guidance states that women should have an oral GTT at presentation to exclude impaired glucose tolerance. The guidance does not make clear why a GTT is preferable to fasting glucose and HbA1c. This may be to avoid missing those with very early presentation of impaired glucose tolerance whose HbA1c may not yet reflect their impaired status, but as oral GTTs are labour intensive, I suggest that pragmatically a FBG and HbA1c would be preferable.

2. NICE guidance states that patients who have impaired glucose tolerance at presentation, and those with additional risk factors for diabetes (FH, h/o gestational diabetes, BMI >30) should have annual GTT. The remainder should have a FBG annually or an oral GTT every 2 years. Pragmatically, again, I would suggest FBG and HbA1c would be more practical in all patients.

3. NICE guidance states that women over 35 with PCOS should have annual BP, waist circumference, BMI and lipids and cardiovascular risk score completed. Conventional cardiovascular risk scores have not been validated in women with PCOS (by this I presume they mean that the additional risk has not been quantified relating to PCOS) but they are the best we currently have. They may underestimate the risk, but presumably it is better to perform an underestimated risk score than none at all!

4. NICE guidance states that women with PCOS should be questioned annually about snoring and daytime somnolence.

Endometrial protection for oligoemenorrhoeic / amenorrhoeic patients

1. NICE guidance states that at presentation other causes of oligo- or amenorrhoea should be excluded
2. Women with oligomenorrhoea (the NICE guidance does not state the threshold for this but elsewhere in the literature 4 bleeds a year is considered the cut off, so I would suggest patients who have been amenorrhoeic for 3 months) should have a withdrawal bleed induced with MPA 10mg daily for 12 days. They should then be referred for pelvic U/S. If the endometrium fails to shed, or the endometrial thickness is >10mm, or the endometrium looks unusual, patients should be referred for endometrial sampling (I presume that pipelle within the practice would be adequate for this purpose as it validated as equally effective as hysteroscopic sampling).
3. To provide endometrial protection, patients should be offered their choice (taking into account other medical constraints) of COC, cyclical MPA 10mg daily for 14 days every 1-3months, or an IUS. If the woman does not wish to have any of these, NICE guidance states that specialist advice should be sought as the woman will need 6-12 monthly ultrasounds.
4. There is insufficient evidence about the protection provided by progesterone only methods but it seems likely that depo-provera provides protection. At present the POP and implant are not evidence based methods for endometrial protection.

Reasons for performing the audit.

I became aware that this area was a learning need for me during a gynae meeting, and it made me question whether systems had been put in place for these patients to address their additional cardiovascular and endometrial cancer risk. The additional risk of diabetes in PCOS, even in patients with normal BMI, has been a fairly recent development in our understanding of the condition, and so I wondered whether these patients had been picked up in terms of cardiovascular protection.

Audit Criteria

1. Endometrial protection discussed at presentation. Target 100%

I chose this audit criterion as I felt patients needed to be aware of this issue in order to take some responsibility for their own health. Whilst cardiovascular risk management falls neatly into our existing systems of chronic disease management, endometrial protection does not. I therefore felt it is worth establishing that patients are aware of the risk of endometrial hyperplasia and cancer.

I accepted either a documented discussion regarding this, or the provision of a leaflet (although I feel a discussion would be important to reinforce this point).

1. Within the last year, documented discussion regarding the number of periods in the last year, and appropriate measures instigated, or the pre-existing provision of COC / cyclical MPA / IUS Target 90%
2. OGTT (or FBG and HbA1c) performed at presentation Target 70% (as some diagnoses

 were many years ago)

1. OGTT or FBG/ HbA1c done within the last year Target 90%
2. In patients over 35, measurement of BP within the last year Target 90%
3. In patients over 35, measurement of lipids within the last year Target 90%

I used these last 2 criteria as markers as to whether these patients had been picked up for cardiovascular protection. I did not separately audit documentation of BMI and waist measurement, although perhaps these would be useful audit criteria for a repeat audit (waist measurement may be a more useful measure than BMI in patients are risk of metabolic syndrome).

Results.

29 of 74 patients with documented PCOS were randomly selected for the audit. 1 patient was excluded as the diagnosis was not confirmed (a comment of “possibly” was in the free text).

Audit Criterion 1. Endometrial protection discussed at presentation.

Of the 29 patients audited, this criterion applied to 22 patients. There was no information available on 3 patients, because their diagnosis was made before fully computerised records.

Of the remaining 19 patients, 14 patients had received information on endometrial protection

 Result 73.7% Target not met

Audit Criterion 2. Within the last year, documented discussion regarding the number of periods in the last year, and appropriate measures instigated, or the pre-existing provision of COC / cyclical MPA / IUS

Of the 29 patients audited, this criterion applied to 24 patients. One patient was postmenopausal and some women were trying for pregnancy so could not be offered COC / IUS or MPA.

Of the remaining 24 patients, 16 had fulfilled this criteria.

Result 66.7% Target not met

Audit Criterion 3. OGTT (or FBG and HbA1c) performed at presentation

Of the 29 patients audited, this criterion applied to 28 patients, one patient already having documented diabetes prior to her PCOS diagnosis. There was no information available for 5 patients due to the time since diagnosis and the lack of full computer records.

Of the remaining 23 patients, 15 patients had met this criterion.

Result 65.2% Target not met

Audit Criterion 4. OGTT or FBG/ HbA1c done within the last year

This criterion applied to 26 patients, as I excluded those who had diabetes at the time of the audit (the reasons for monitoring their HbA1c were not the same and did not constitute the screening exercise which is the purpose of this audit).

Of the remaining 26 patients, 8 patients fulfilled this criterion

Result 30.8% Target not met

Audit Criterion 5. In patients over 35, measurement of BP within the last year

Of the 29 patients audited, this criterion applied to 8 patients by virtue of their age. One of these was diabetic so I excluded her for the reasons shown above.

Of these 7 patients, 1 patient fulfilled this criterion.

Result 14.3% Target not met

Audit Criterion 6. In patients over 35, measurement of lipids within the last year

Of the 29 patients audited, this criterion applied to 8 patients by virtue of their age. 1 was diabetic and was excluded.

Of these 7 patients, 1 patient fulfilled the criterion.

Result 14.3% Target not met.

Discussion

I think this is an area where recent guidelines have outpaced us, and it is now worth reviewing the workload involved in starting a recall system for these patients in terms of cardiovascular protection. Of the 74 patients with documented PCOS, 22 are currently over 35. \*\*\*\*\*\*\* of these already have other reasons for addressing cardiovascular risk (diabetes or established heart disease). This would currently mean adding an extra \*\*\*\*\*\* patients to the HCA’s existing patient load.

The increased workload for the 52 patients under 35 to have an annual FBG / HbA1c is more substantial, particularly if coupled with advice about weight loss; but for patients with a BMI over 30 we should be performing ?????annual diabetes checks anyway. In view of the statistics that over 50% of patients will have diabetes by the age of 40, it is hard to argue against this intervention.

In terms of endometrial protection, a letter given out by the HCA to all patients, when attending for their annual blood test, explaining the need for endometrial protection, would leave the responsibility with the patient to attend if they are oligo- or amenorrhoeic and not receiving protection. The importance of identifying OSA (not covered in this audit as it quickly became apparent that this had not arisen in discussions with any of the patients) could also be discussed in this letter.

 Information sheet for patients with PCOS (to be handed out by HCA at blood test)

Thank you for attending for a blood test. Please tell the HCA if you have symptoms of diabetes (excessive thirst and passing a lot of urine) because PCOS increases your risk of developing diabetes, and we want to identify this as soon as we can to prevent future health problems.

 Women with PCOS can also be at increased risk of uterine problems, such as cancer, if they have fewer than 4 periods a year. We can reduce this risk enormously by certain medical treatments.

If you don’t think you have gone through the menopause, and have fewer than 4 periods a year, we would like to see you to discuss reducing the risk of uterine problems. This does not apply if you are taking the combined pill or have a Mirena IUS, or if you are under the gynaecology department and they are giving you treatment to prevent this problem.

 Women with PCOS also have a higher risk of breathing problems when they sleep. If you know that you snore, and have a tendency to feel sleepy during the day, it is important that you come to surgery to discuss this with a doctor, because a condition called Obstructive Sleep Apnoea is more common in people with PCOS. Treating this is very important to prevent future health problems.

Comment on BMI etc????