Office Gynaecology

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Introduction

The training of registrars to become obstetrician-gynaecologists is performed in large hospitals, usually associated to an university. These hospitals are mostly level II and III hospitals to which more complicated cases are referred. The patients that registrars are exposed to are thus mostly selected to suffer from significant disease. This is true for both obstetrics and gynaecology. It is a logical consequence of this system that low risk patients and screening of well women for disease would be underrepresented in this setting.

When community based women however visit their gynaecologists, a very large percentage of them would do so for preventative reasons. Many would present for cancer prevention, for pre-pregnancy advice, for contraception or advice on menopausal symptoms or concerns. In the current training system registrars are infrequently exposed to these women as the patients at the outpatient clinics at training hospitals are unlikely to represent this grouping. Unless a woman has a possible familial cancer syndrome she is unlikely to be seen for prevention at a training hospital.

That leaves a deficit in the skills of the registrar on how to deal with the average ''normal risk'' patient. The same would be true for pre-conception visits for low risk women. Patients seen at pre-conception clinics at a training hospital would more likely be patients with previous pregnancy losses or concomitant medical diseases such as hypertension or diabetes. Registrars are thus unlikely to have significant exposure to low risk women that seeks advice on how to plan for a healthy pregnancy where little more is needed than advice on folic acid supplementation, ascertaining immunity to rubella, ideal body weight and exercise regimes and general advice. The fact that these are low risk patients do not make their visits trivial. This group of patients would probably constitute the majority of visits that make up the work load of the office based gynaecologist.

The model that has developed over decades for the practice of Obstetrics and Gynaecology has served us well in developing very specialized skills for practitioners including for the different sub-specialties but it also has its limitations. It has become quite acceptable for the feto-maternal specialist at a training hospital to not have much involvement in the management of the gynaecology oncology patient and vice versa. There is however undoubtedly a need for an office gynaecologist that understands the principles of the different sub-specialties and knows and be able to advise patients on what is available, and knows the limitations and advantages of different methods of management whether it be for oncology, feto-maternal medicine, urogynaecology or menopausal medicine.

It has been well established in many branches of medicine that sub-specialization with an increased opportunity to increase numbers of procedures done leads to better outcomes irrespective of which outcome is measured. A system where an office based gynaecologist, who understands the different issues relevant to the sub-specialties, can advise and refer to a sub-specialist might thus have many advantages to it.

The work of an office gynaecologist could be divided into preventative measures, diagnostic procedures and therapeutic interventions.

Preventative medicine

The office gynaecologist would be responsible for advising on and implementing procedures to prevent a number of diseases in different organ systems. These would include, but is not limited to, gynaecological cancers, breast cancer, fracture prevention and cardiovascular disease. As there are numerous protocols to advise on how these preventions should be done, it is implied that there would be advantages and disadvantages to the different protocols.

Breast cancer prevention would be an example. It has become so ingrained in the minds of women that mammography is an essential part of the healthcare of responsible women that few questions are asked on the value of mammography. Most practitioners are convinced of the value of mammograms but also realise that the benefits are less than originally thought. It is well documented that not only will there be many false positives that could lead to unnecessary interventions, even mastectomies and adjuvant therapy, but that the number of patients that need to be screened to save one life would be well in excess of a thousand. We now know that some of the early cancers, particularly in situ cancers would never have become clinically relevant. It is also true that as therapy for breast cancer improves and leads to better cure rates, the advantages of mammography would be less obvious. As cure rates for established cancers improve it would be easier to avoid the false positives of mammograms. The dangers of unnecessary therapies are obvious and do not only include the immediate medical and psychological damage due to the diagnosis and treatment of an in-situ breast cancer (that would never have become an invasive cancer) but has long term consequences such as an increased risk for myocardial infarctions after radiotherapy to the breast. The consultation by the ''Office Gynaecologist'' will lead to discussion on all these aspects.

Breast self-examination is another example. Women believe that all women should do this because we told them so. There is

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however hardly any evidence to support this examination, and good evidence that it is of no value. Explaining the difference between breast awareness and a structured programme of breast self-examination takes time and knowledge of the literature. This is the sort of scenario that registrars would have little exposure to. It is also the sort of information that patients would have limited access to when they are seen for routine health screening at nongynaecologists.

Screening for gynaecological cancers suffer from the exact same problem. Annual cervical cytology examinations has become the norm in practice and women present for their examinations quite predictably as they have been instructed to do so by their well-meaning care givers over time. It is now however clear that annual cervical smears for women aged 30-65 years is not only unnecessary but might well be harmful. It has now been added to the American College for Obstetrics and Gynecology's list of five commonly done procedures that should be avoided. The reason why it should be avoided is obviously the unnecessary interventions performed for LGSIL in young women, lesions that would have undergone spontaneous remission. With the annual Pap test, the use of CA-125 levels to screen for ovarian cancer is condemned in the ACOG's "Choosing Wisely" campaign. The data is quite conclusive that annual CA-125 tests do more harm than good. It is a test that should be performed when indicated as part of an algorithm to work up an adnexal mass.

Preventing cardiovascular disease and fractures would be another crucial part of the consultation when a woman presents to her gynaecologist for health advice. Gynaecologists might be in a unique position to intervene in these important domains. Well women that present for an annual examination would be better served by receiving advice about proper exercise regimes and diet than by having an annual Pap smear. This would require understanding, knowledge and skills from the office gynaecologist that hardly attracts much attention as part of the training of a registrar.

As patients present to a gynaecologist for both advice on and relief from menopausal symptoms, gynaecologists are in a good position to not only intervene to prevent cardiovascular disease by measuring blood pressures and diagnose lipid abnormalities but are also the right persons to advise on fracture prevention. Fracture prevention has moved beyond the point where therapy to prevent fractures are solely based on T-scores. One now has to do more integrated stratification of patients and use tools such as the FRAX fracture prediction tool. Advice should be given on the beneficial effects of exercise, good eyesight, to not have too aggressive blood pressure control, and other forms of fall prevention such as well-lit steps and hand rails where patients walk.

These examples might not require special technical skills but would require time for the consultation and a gynaecologist that has kept abreast of the ever changing literature on these topics.

Diagnostic procedures

The single most common presenting symptom that women present with at their gynaecologist would probably be menstrual abnormalities. The management of these problems need some quite sophisticated diagnostic skills. Not only would good history taking be important but good ultrasound skills is essential. The level of ultrasound skill needed in the management of these patients has become greater over the last number of years, as knowledge inccreases. Diseases such as adenomyosis or endometrial polyps are less easy to diagnose than myomas and extra skills need to be acquired to become proficient with these diseases. Infusing fluid into the endometrial cavity for ultrasound examination is a procedure that is infrequently done by most gynaecologists, probably because of a lack of expertise and the fact that they also have theatre list where it might well be easier to just book the patient for a hysteroscopy in theatre.

A benefit of focusing one's skills on an office based practice would be that certain more advanced investigations could now be done as it becomes financially viable to invest in for instance skills and equipment for office hysteroscopy. This would lead to major benefits and savings for the patient with menorrhagia. Admission into a hospital for a theatre based hysteroscopy under anesthesia is very costly. There is no reason why office procedures like hysteroscopy should not become the norm except for the fact that the necessary skills and equipment would be too expensive to invest in if the gynaecologist does not have a special interest in managing these patients in his office.

An office based gynaecologist would also frequently be called upon to perform the evaluation of patients with urinary incontinence whether it would be stress, urge or mixed incontinence. It is understandable that not all gynaecologists would want to perform incontinence surgery but the office based gynaecologist would be able to work up the patient for surgery so that a single visit to a urogynaeclogist before surgery would be all that is necessary. He/she would have to understand bladder diaries, perform the urine MC+S and know when to perform a urodynamic evaluation. It is clear from the literature that physiotherapy, bladder retraining, weight loss and management of low grade infections are important factors to be addressed before one reverts to surgery. These are all steps that would fit perfectly into the practice of office gynaecology. Another reason why this approach would work well is that the office gynaecologist would in any case work closely with a network of dieticians and physiotherapists in the management of obesity in the menopause for cardiovascular disease prevention and for instance fall prevention in frail elderly women The different available anti-cholinergics for therapy in overactive bladders should be understood as initiation of these drugs for the proper patients should be started by the primary gynaecologist before referring to a urogynaecologist if at all necessary.

The management of abnormal cervical cytology would also benefit from management by a purely office based gynaecologist. Colposcopy and office treatment of the lesion by whichever procedure the gynaecologist prefers is a far more cost effective management option than theatre management of these lesions. Again it is understandable that few gynaecologists would incur the expenses to buy equipment to perform a LLETZ in his rooms if he has a theatre list where he could use the hospital's equipment and be paid the same fee.

Therapeutic procedures

The object to achieve in women that present with abnormal menstruation or bleeding is to alleviate the abnormal bleeding and to exclude malignancies. To achieve this goal a proper diagnosis is self evident. This is a challenging problem as despite taking a good history, a pelvic examination, various blood tests and a trans vaginal sonar (TVS), a diagnosis will only be possible in 50-60% of cases.

FIGO has recently suggested the use of a classification system PALMCOEIN for the classification of abnormal uterine bleeding (AUB). PALM-COEIN is an acronym for polyp, adenomyosis,

leiomyoma, malignancy and hyperplasia, coagulopathy, ovulatory dysfunction, endometrial, iatrogenic and not yet classified. This system is intended to lead the gynaecologist to a more specific diagnosis and to abandon nonspecific terms such as dysfunctional uterine bleeding.

As women age the chances of suffering from an organic cause of her AUB increase. Intra-cavitary lesions would be present in about 50% of premenopausal women with AUB that is resistant to medical therapy. It is thus mandatory to exclude intra-cavitary disease in particularly perimenopausal women with AUB.

One would however have to individualize the extent of the investigations depending on comorbidities such as obesity, diabetes and how much she bleeds. Usually a woman should use <21 pads or tampons per cycle or change protection >3 hourly. Intermenstrual bleeding would also be more ominous than just heavy bleeding. The investigations necessary to arrive at a diagnosis would be ideally suited to the practice of an office based gynaecologist and would need to be more extensive than the investigations usually available in the offices of most South African gynaecologists.

Endometrial sampling is probably performed by all gynaecologists and no special equipment or expertise is required. There are however no universally accepted consensus on the indications for this procedure and individualization by a gynaecologist that sees many of these patients would lead to better care. The sensitivity and specificity of this test is also not ideal and one would have to know when to continue with further investigations.

The accuracy of endometrial biopsies vary widely. A number of studies have been published on the accuracy of pipelle biopsies performed in patients known to have endometrial cancer. Sensitivities ranging between 67% and 97% have been found. This is probably because many endometrial cancers are focal and a pipelle biopsy only samples about 4% of the endometrial surface and is thus only good for diagnosing global disease.

Office hysteroscopy has many advantages. Small diameter hysteroscopes with instrumentation has made office hysteroscopy an attractive option. It can be performed in an awake patient. In a study retrospectively analysing 4054 women who underwent hysteroscopy, polyps were the most frequent diagnosis, found in 34% of cases. Endometrial hyperplasia was diagnosed in 15% and cancers in 2.6%. Hysteroscopy should be performed in the follicular phase. Either CO2 or saline could be used to distend the cavity. Unfortunately the equipment is expensive and would only be viable financially in an office based practice where these cases are concentrated. For the current practice system in South Africa it would be easier to book the patient on a theatre list in hospital. The remuneration system in our current practice style also does not differentiate between a hysteroscopy performed in the rooms and the hospital. There would have to be a clear financial incentive for the doctor to invest in this expensive equipment to invest in it. By saving hospital and anaesthetic fees it would still lead to significant financial savings.

Saline infused sonohysterography (SIS) is also not commonly practiced in our current system, probably because the emphasis of most gynaecology practices would not be on the office management of problems like AUB. This is recommended as the 1st line diagnostic approach in women with AUB where cavity disease is suspected. TVS can sometimes not be effective in visualizing the endometrial lining. Previous scarring, fibroids, obesity, adenomyosis and axial positioning of the uterus are situations where visualization could be sub-optimal and saline infusion could then be helpful. Patients can then be classified into 3 groups. the 1st group would be where anatomic pathology could be excluded as good visualization was now possible. The 2nd group would be where the endometrium was globally thickened and a pipelle biopsy would now be appropriate and a 3rd group where focal lesions become apparent and visualization now becomes necessary. If a focal lesion is seen during SIS, Doppler flow studies can lead to better diagnosis in identifying feeder vessels to a polyp. With this technique positive predictive values of 81% can be achieved. The rate for false positive examinations can be virtually excluded when this examination is performed before day 10.

Office based endometrial ablation (EA) is well described in the literature but data on performing this procedure in South Africa is not available. Patient satisfaction with this treatment ranges from 86-96% and amenorrhea can be achieved in up to 50% of women. There would be a number of reasons for the lack of enthusiasm for EA as an office procedure. The first would be the lack of gynaecologists who have an interest in office gynaecology. As sedation is required for these patients, the outlay of an office to perform these procedures in would be more expensive. We also have little guidance as to what equipment and measures should be available to make this a safe and acceptable procedure. Certification as an office gynaecologist with sufficient training and experience would lead to better care for women that would benefit from this procedure.

Conclusion

It is clear that gynaecology as practiced in our current system is not optimal. Sub-specialization improves skills and outcomes. By developing office based gynaecology as a career option for gynaecologists numerous advantages would accrue. these advantages would be to the benefit both of patients and gynaecologists. Patients will benefit by having their care given by a gynaecologist that focuses on preventative counseling and that has time and expertise to guide patients through intricate decision pathways. These benefits will include cost effective investigations and therapies that would be office based and thus lead to fewer hospital admissions. For gynaecologists that could be certified as office gynaecologists, new career opportunities and paths become available. New and better skills will develop that would be to everybody's benefit. It would also be to the benefit of other sub-specialties. If office gynaecologists would be part of a network of oncologists, reproductive specialists or urogynaecologist protocols for the evaluation of patients could be standardized that would set these sub-disciplines free to concentrate more on surgery and would have less work up to do for patients before definitive therapy. This may be one of the important developments in the practice of Obstetrics and Gynaecology over the coming decades.

Suggested further reading

1. *Office diagnosis and management of abnormal uterine bleeding. Tsai and Goldstein. Clinical Obstetrics and Gynecology Volume 55, Number 3, 635-650.*
2. *Effect of 3 decades of screening mammography on breast cancer incidence. NEJM 2012;367:1998-2005.*
3. *Office Gynecology Advanced management concepts. Knaus / Isaacs Editors. ISBN - 13:978-1-4612-8740-7.*