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Improving the efficiency of the Antenatal and Gynaecological Outpatients' Department at Mater Dei Hospital

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Summary

It is apparent that there is variance in the modus operandi between the various Antenatal/ Gynaecological Outpatients' Sessions at Mater Dei Hospital. In some outpatients sessions, waiting times are reasonable and there is minimal patient overcrowding. Conversely in other outpatients' sessions, the nature of these outpatient characteristics suggest otherwise. Outpatients' sessions are characterised in the main two forms of referral. These forms of patient referral may be delineated as new case appointments and follow-up appointments. Both forms of appointments are regulated by quotas as determined by the firms' consultants. System overload of both forms of appointments may and frequently occur. In the circumstance of new case appointments, unscheduled appointments, denoted as "walk-ins", may overwhelm the outpatient new case system. Inappropriate referral has been noted in a number of new cases and "walk-ins". In the instance of follow-up appointments, system overload may arise due to unscheduled reviews. Moreover there may be circumstances where unnecessary follow-up appointments have been scheduled out of habit and not out of clinical need. Excessive waiting time at the outpatients department is detrimental to the service. Patient and doctor frustration rates skyrocket. Many members of the nursing and medical staff feel exhausted after some outpatient sessions impacting morale. The environment is not congenial to efficacious consultation. Locally it has been noted that patients actually left the outpatients department frustrated at having to wait several hours for the consultation. On a positive note the waiting lists are minimal. This undoubtedly is due to the stamina and hard-working character of the nursing/midwifery and medical personnel of the Department of Obstetrics and Gynaecology. It appears that the current imbalance due the excessive workload has to be addressed. In the case of many of unnecessary follow-up appointments, there are firms at Mater Dei Hospital that have successfully resorted to telephone interviews. During the telephone interview the investigation results and future follow-up is explained to the patient. This process is backed up by a posted hard copy and occasionally where appropriate by e-mail. Another strategy to deal with excessive numbers of new case and follow-up appointments may involve increasing the number of simultaneous outpatients' reviews by increasing the number of consulting rooms. Capping of walk-ins both as new cases and follow-ups has to be instituted to curtail the excessive number of unscheduled appointments. More efficient implementation of the consultation process should be applied so as to avoid unnecessary prolongation of consultations.

Key words: Antenatal/gynaecological outpatients; Walk-ins; Consultation process.

Introduction

Mater Dei Hospital caters for more than 95% of Antenatal and Gynaecological secondary/tertiary level services offered by the National Health Service of the Maltese Islands. Every day during the working week (Monday to Friday) there are two Consultant-led Firms attending the combined Antenatal and Gynaecological Outpatients Department. Each Firm consists of 4-6 medical personnel who review a total of 60–80 patients everyday. The majority of patients are referred to the Outpatients' Department by practitioners working in private practice or in the community health centre under the aegis of the National Health Service.

Appropriate referral to the Outpatients' Department

The general practitioner/ hospital specialist interface is a key organisational feature of the Outpatients Department. General practitioners and specialists should refer patients to hospital consultant care when investigation or therapeutic options are exhausted in primary care and more specialised healthcare is required. Outpatient referral has considerable implications for patients, hospital functioning, and healthcare costs. There is considerable evidence that the referral processes to the outpatients department can be improved [1].

A number of studies have reviewed a variety of strategies to increase the rate of appropriate referral to the Outpatients' Department. Generally effective strategies involve an element of active form of learning. Active forms of education include dissemination of concise guidelines with structured referral sheets. These guidelines would be further reinforced with the involvement of hospital consultants in educational activities. There are other organisational interventions which were shown to be successful however due financial and organisational constraints, these strategies may not be feasible in the Maltese setting [2].

The formal mode of referral at the Mater Dei Hospital

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Outpatients' Department involves the filling in of a ticket of referral by a private or health centre medical practitioner. The specialist or medical practitioner then instructs the patient to contact the hospital enquiries so that an appointment with a particular firm or consultant should be organized. This route is circumvented if the medical practitioner or the patient's consultant feels that the case of an urgent nature. A laudable practice is occasionally implemented whereby in some of these unscheduled cases the medical practitioner actually contacts the hospital consultant. These unscheduled referrals are locally described as "walk-ins". The latter form of referrals should be a minority as evidenced by the nature of disease progression in general [3].

Walk-in health services are associated with significant healthcare costs. Healthcare costs increase with unscheduled walk-in consultations because of duplication and redundant laboratory services. Moreover personnel costs increase due to review-duplication and searching of medical records [4]. Units with elevated walk-in patients impact outpatient healthcare services adversely. As a consequence of multiple "walk-in" appointments, scheduling becomes extremely complicated and affects proper functioning of the Outpatients' Department [3]. In fact some units have had to devise complicated methods of appointment scheduling to improve operating efficiency of outpatient resources [5]. Moreover even from local experience walk-in consultations lead to unacceptable levels of overcrowding and waiting times.

A safe percentage of this cohort of "walk-in" patients, should be regulated to around 10-15% of the agreed quota of outpatients to be reviewed. The latter percentage should be over and above the actual needs of the outpatient population, however this range should offer a wide latitude of safety. Exceeding the agreed level of "walk-ins" should be addressed initially by investigation and possible dialogue with the concerned medical practitioner or consultant.

Appropriate follow-up at Outpatients' Department

There is evidence both locally and from the medical literature that follow-up visits at Outpatients' Departments can be significantly curtailed, reducing overcrowding in these heavily attended clinics. A reduction in the number of follow-up patients attending outpatient clinics, if achievable without harm, would improve access for newly referred patients. Hughes *et al.* have shown that from the outpatient clinics, the discharge rates were only 26% and the reason for further clinic review was often not clear [6]. Many of follow-up patients had no intervention or treatment change performed at the outpatient clinic (42%). This suggests that patients are reviewed to assess symptom change rather than to receive further medical intervention. The employment of fixed times for review appointment (six months or one year) suggests that the intervals are determined by habit rather than clinical indication. This study suggested that a substantial proportion of follow-up outpatients do not require regular outpatient review. A reduction in follow-up visits require alternative pathways of management including good communication and exchange of information between hospital specialists and general practitioners, development of formal written discharge planning in outpatient letters, and other forms of follow-up [6].

It is the remit of the consultant or his senior delegate to take the opportunity at the first outpatient visit as a new case to map out their future engagement of the patient both in the short- and long-term. If investigations including minor procedures are required, on receipt of normal results, patients can be contacted by telephone and informed of the result. Concomitantly future follow-up with their general practitioner or with the regional health centre may be advised. As a further back-up to the telephone call, a hard copy with the findings of the normal result with advice regarding follow-up with their general practitioner, or with the regional health centre is also sent by post to the patient. An alternative to the posted hard copy is the employment of information technology. With the consent of the patient, the result and advice on future follow-up is delivered by e-mail. In the case of abnormal results the current system of recalling the patient to the outpatients' department should be retained.

Telephone interviews are an accepted form of consultation and follow-up both in clinical and research settings. Telephone consultation appears to reduce the number of clinic contacts and out-of-hours visits by general practitioners [7]. Unnecessary follow-up appointments will as a consequence be avoided. Telephone review service even for post-operation follow-up is acceptable to patients, cost-effective, and reduces the number of unnecessary outpatient reviews [8].

The further employment of information technology in the form virtual outreach consultations is expected to make outpatients' referral more efficient. One trial [9] indicated that virtual outreach consultations is variably associated with increased offers of follow-up appointments according to region and specialization. However virtual outreach consultations were linked to significant increases in patients' satisfaction and substantial reductions in diagnostic tests and investigations. Further fine-tuning of this service will require appropriate selection of patients, substantial personnel reorganisation, and provision of logistical support.

Efficient use of Departmental Outpatient space

Another strategy to reduce waiting times and overcrowding in the Outpatients' Department is the greater availability of medical personnel to review patients. The limiting factor in some outpatients' sessions is the lack of consulting rooms. There lies the possibility with the co-operation of the Outpatient Nursing Officers to identify space that could be made available as consulting rooms increasing the rate of outpatients' consultations to be carried out si-

multaneously.

At present during Saturday mornings. the Outpatients' Department has been left underutilised. There lies the possibility that overflow of both new cases and follow-ups may be reviewed on Saturdays. If this measure is not sufficient, then the application of afternoon sessions have to be explored. Both these interventions require extra staff from both the medical and midwifery/nursing personnel.

Efficient utilisation of the consultation process

Doctor/patient discourse audits are increasingly being untaken to assess efficacy of consultations. A doctor/patient discourse audit [10] was undertaken locally in Obstetric and Gynaecological Outpatient setting. Ninety-five consecutive consultations from combined Obstetric and Gynaecological outpatients were assessed for the duration of the consultation, number of questions and answers from the doctor (Muscat Baron), patient, and relatives/friends. The number of interruptions (telephone, etc) during the consultation was reported. The duration of each of the consultation was recorded.

During this audit significantly more questions are asked by the doctor during a gynaecological consultation (8.5 ± 5.9) compared to an antenatal visit (4.0 ± 2.2, $p < 0.0001$). A similar pattern is noted for patient and accompanying persons initiated questions (gynaecological 2.4 ± 3.5 *vs*. obstetric 1.2 ± 1.8, $p < 0.03$). Interruptions during consultations averaged 0.85/antenatal visit and 1.2/gynaecological consultation. During one particular gynaecological consultation 14 interruptions were recorded! Seventy-three (70%) patients were accompanied by relatives or friends. The great majority of antenatal patients (91.5%) were accompanied by relatives or friends, while 56% of patients with gynaecological complaints were accompanied. On average the companions of a patient with a gynaecological complaint asked more questions (0.6/ consultation) patient compared to antenatal patient (0.3/consultation, $p = 0.05$).

The mean duration of an antenatal visit was 6.9 ± 3.8 minutes while that of a gynaecological consultation was 7.8 ± 4.2 minutes. The differences in consultation duration were not statistically significant.

This audit revealed that there is variance in the nature of Obstetric and Gynaecological consultations in an outpatients' setting. This varies for both doctor and patient initiated discussion. The nature and duration of the consultation may be influenced by the presence of relatives/friends accompanying the patient.

The above audit reveals that there are characteristics that impact the duration of the consultation process. It is acceptable practice to allow only one trusted relative/friend to accompany the patient. Excessive numbers of relatives/friends will unbalance the consultation equilibrium. Moreover interruptions during outpatient consultations occur on a regular basis and should be reduced to a minimum. All these factors certainly prolong the consultation possibly unnecessarily, increasing the waiting time for subsequent patients.

Every effort should be made to initiate outpatient consultation sessions as punctually as possibly. It is appreciated that ward work may delay the attendance of medical staff to the outpatients. However it is conceivable that a junior member from each firm responsible for the day's outpatients' session may initiate the follow-up cases as early as possible. A possible suggestion is that one doctor from each firm is to be designated to start the outpatient's session at 7:45 a.m. When late doctor arrival issues are solved, this can reduce the clinic service time by up to 20% [10].

Occasionally the consultation is unnecessarily lengthened by a number of factors. As the above audit suggests, interruptions during a consultation are a common occurrence. Logistical information to patients regarding the actual site and direction to day-care surgery or ward attendance frequently prolong the consultation. This especially occurs with elderly patients. In such situations if difficulty arises, this information should be delivered outside the consultation.

Correlation between outpatients and bed-occupancy

Similar to other general hospitals in countries with an ageing population, Mater Dei Hospital suffers from seasonal problems of bed occupancy. There appears to be a correlation between hospital bed-occupancy and outpatients attendance [11]. Patients with certain complaints who are seen at the Outpatients Department may be more likely than in community care to be admitted to a hospital ward and occupy a bed. The reasons for this are various. The direct proximity of the Outpatients Department to the admitting ward in the same institution encourages possible day care to be delivered "in-house". The actual physical barrier when a patient is seen in the community may deter the attending physician from easy resort to hospital admission and treat the condition as an outpatient [11]. As a corollary if the outpatients' department is overbooked, the risk of excessive admissions may occur. Accordingly a knock-on effect of reducing overbooking is a possible reduction in the pressure on the hospital bed-state. Occupancy analytics indicate significant commercial benefits with efficient outpatient resource management [12].

Conclusion

With greater adherence to scheduled new cases and follow-up appointments, it is likely that prolonged waiting times and overcrowding at the Outpatients' Department may be avoided. Capping of the number of "walk-in" appointments and alternative methods of managing follow-up reviews will significantly improve the efficiency of the Obstetric/Gynaecological Outpatients' Department at Mater Dei Hospital. More efficient

implementation of the consultation process should be applied so as to avoid unnecessary prolongation of consultations.

References

[1] Grimshaw J.M., Winkens R.A., Shirran L., Cunningham C., Mayhew A., Thomas R., Fraser C.: "Interventions to improve outpatient referrals from primary care to secondary care". *Cochrane Database Syst. Rev.*, 2005, *3*, CD005471.

[2] Akbari A., Mayhew A., Al-Alawi M.A., Grimshaw J., Winkens R., Glidewell E., *et al.*: "Interventions to improve outpatient referrals from primary care to secondary care". *Cochrane Database Syst. Rev.*, 2008, *4*, CD005471.

[3] Su S., Shih C.L.: "Managing a mixed-registration-type appointment system in outpatient clinics". I*nt. J. Med. Inform.*, 2003, *70*, 31.

[4] Shaw K.J., Gutierrez M., Fridman M., Gregory K.D.: "Health care costs associated with changing clinics and "walk-in" deliveries: evidence supporting a regionalized health information network". *Am. J. Obstet. Gynecol.*, 2008, *198*, 707.

[5] Reilly T.A., Marathe V.P., Fries B.E.: "A delay-scheduling model for patients using a walk-in clinic". *J. Med. Syst.*, 1987, *2*, 303.

[6] Hughes M.L., Leslie S.J., McInnes G.K., McCormac K., Peden N.R.: "Can we see more outpatients without more doctors?" *J. R. Soc. Med.*, 2003, *96*, 333.

[7] Bunn F., Byrne G., Kendall S.: "Telephone consultation and triage: effects on health care use and patient satisfaction". *Cochrane Database Syst. Rev.*, 2004, *4*, CD004180.

[8] Gray R.T., Sut M.K., Badger S.A., Harvey C.F.: "Post-operative telephone review is cost-effective and acceptable to patients". *Ulster Med. J.*, 2010, *79*, 76.

[9] Wallace P., Haines A., Harrison R., Barber J., Thompson S., Jacklin P., et al.: "Joint teleconsultations (virtual outreach) versus standard outpatient appointments for patients referred by their general practitioner for a specialist opinion: a randomised trial". *Lancet*, 2002, *359*, 1961.

[10] Almomani I., AlSarheed A.: "Enhancing outpatient clinics management software by reducing patients' waiting time". *J. Infect. Public Health*, 2016, *9*, 734.

[11] Rogut L.: "Beyond the clinic: redefining hospital ambulatory care". New York: United Hospital Fund of New York, 1997.

[12] Bacon M.: "Occupancy analytics: A new basis for low-energy–low-carbon hospital design and operation in the UK". *Architectural Engineering and Design Management*, 2014, 10, 146.

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