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"Patient Satisfaction in a One-Stop Haematuria Clinic and Urology Outpatients. A Comparison of Clinics."

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ABSTRACT

Background: One-stop clinics have shown to improve the patient experience in early diagnosis of potentially life threatening conditions, although this service is less evident in Urology, where morbidity and mortality resulting from bladder cancers are increasing.

Aims: This paper will discuss whether or not One-stop haematuria clinics improve patient satisfaction.

Methods: A survey analysis comparing patient satisfaction for a One-stop clinic and a traditional outpatient service was developed, based around the 'Determinants and Components' theory. A convenience sample of 102 haematuria patients attending either the One-stop clinic (route A) or an outpatient clinic within the Urology service (route B), at an assigned NHS hospital, were invited to complete a 'patient satisfaction' questionnaire. Data was compared between clinic routes according to patient satisfaction themes of: Time and Availability, Quality of care, Environment, Accessibility and Convenience and Global satisfaction.

Results: Response rate was 51%; with overall positive patient satisfaction levels for both clinics. Route A patients were most satisfied with Quality of care, however reported problems relating to prior information provision and appointment coordination. For Route B, Availability and Time was a primary source of both satisfaction and dissatisfaction, receiving contradictory qualitative and quantitative responses. Both groups rated Environment and Accessibility and Convenience highly overall, yet these were not a primary determinant of satisfaction.

Conclusions: The majority of haematuria patients (82%), expressed a preference to attend a One-stop clinic over several outpatient appointments. Practical recommendations for related service improvements are offered.

Key words: haematuria; nursing; one-stop clinics; patient satisfaction, referral.

(1) RATIONALE / BACKGROUND FOR THE STUDY:

Blood in the urine is a common urological condition, accounting for 20% of urology referrals *(Miah & Catto, 2010).* Haematuria causes vary by age, gender, ethnic group, duration or a combination of these *(Ng et al. 2012),* and is the "classic presentation" of bladder cancer *(Grossfeld et al. 2001);* 70 - 80% of bladder cancer patients experience painless, gross haematuria.

Haematuria Referral

Due to its potential to indicate malignancy, haematuria should be investigated promptly and stringently, warranting specialist assessment and selective referral. Within UK primary care, criteria for suspected cancer from the *National Institute of Clinical Excellence (NICE, 2005),* follows the Two Week Wait (2WW) directive *(Department of Health, 1997):* all suspected cancer patients should be seen by a specialist within 2 weeks of General Practitioner referral. Tests must be specific and accurate to prevent over-investigating, avoiding under or misdiagnosing, whilst simultaneously maximising Patient Satisfaction (PS) and reducing concern.

The Haematuria Clinic

Haematuria clinics have remained largely unchanged for several decades *(Bott et al. 2008)*; incorporating a series of patient-centred investigations *(figure 1).*

Figure 1: An Investigatory Flowchart for patients with at least one positive Haematuria Screening test

However, the typical haematuria patient *has* changed; an increased median age, attributable to rising numbers of newly diagnosed bladder cancer patients above 85 years and cancer survivors requiring long-term follow-up *(Ploeg et al. 2009),* leading to extended waiting times and outdated, overcrowded, outpatient clinics. These population changes, combined with validated new technologies, are not reflected in a 21st Century haematuria service *(Whelan et al. 2008).*

Why the One-stop clinic?

As a contemporary alternative, the One-stop design; a two-tier priority referral system, based around NICE criteria and urology timelines *(NICE, 2005),* provides patient-centred care, whilst simultaneously addressing patient risk and achieving governmental 2WW targets.

Within this One-stop clinic route (route A), the haematuria patient will undergo ultrasound imaging, nurse-lead assessment and cystoscopy within the same visit and hospital site. Alternatively, a patient may be referred via route B; whereby they will attend several urology outpatient appointments on different days, for separate investigations.

So which ~~Yet does it~~ provides greater overall PS?

(2) RESEARCH QUESTIONS OR AIMS OF PROJECT

This study aims to determine the efficacy of the One-stop haematuria service, by comparing PS through survey analysis, in a convenience sample of haematuria patients attending a One-stop clinic (route A), against those attending a standard urology outpatient clinic (route B), at a London National Health Service (NHS) Hospital.

What is Patient Satisfaction?

Ironically, the needs of the most important person in the healthcare encounter; the patient, have received minimal assessment in Urological Outpatient settings. Despite previous Government documents such as *The White Paper, Improving Outcomes: A Strategy for Cancer (DoH, 2011),* and the *'Cancer Patient Experience Survey' (DoH, 2012),* illustrating how service-user views can promote and improve patients' experiences; systematic, critical measurement of PS, remains ill defined *(Fenton et al. 2012).*

Theoretical Framework

The 'Determinants and Components' framework *(Ware et al. 1984)* argues a patient's contentment with care is represented as an overarching general satisfaction domain, influenced by unique dimensions, corresponding to major characteristics of healthcare services *(figure 2).* For each taxonomy dimension, a patient's preferences, characteristics and expectations (determinants), mediate with experience of care (components), causing subjective responses of PS.

Figure 2: Patient Satisfaction Characteristics based upon the 'Taxonomy of Dimensions'

***(Reference:** Ware et al. 1984).*

PS is a two-way process; interactions exist both within and between dimensions, resulting in multi-factorial influences.

Application of the 'Determinants and Components theory' to the Haematuria Clinics

To comparatively evaluate PS in the One-stop haematuria clinic against the urology outpatient clinic, cited benefits and drawbacks must be measured, then assessed. Reducing PS to five main dimensions of: Availability and Time, Accessibility and Convenience, Environment, Finance, and Quality of Care, analysis may facilitate this (*Ware et al. 1988).* (See table 1).

Table 1: Definitions of the Patient Satisfaction Themes devised from Ware's 'Taxonomy of Dimensions' (Ware et al. 1984)

Table 2 reviews typical haematuria clinic routes from the patient experience perspective, using *Ware et al's (1984),* theoretical framework and the five PS themes.

Table 2: Comparison of the One-stop haematuria clinic with the Urology Outpatient clinic at a London based NHS hospital, according to Patient Satisfaction themes

(3) SAMPLE

A convenience sample of 102 haematuria patients attending the urology outpatient service as urgent cases, at a single London NHS Hospital, over a five month period, were invited to complete a 'Patient Satisfaction Survey,' following preliminary investigations. Assigned haematuria clinic route determined sample selection, governed by the centre's protocol; 39 patients (38.2%) in route A (One-stop haematuria clinic), and 63 patients in (61.8%) route B (urology outpatients clinic).

Random assignment of patients with equal numbers to each stratum was not feasible, although sampling methodology enabled identification of comparable groups, based upon demographics.

Questionnaire distribution was face to face, by a Researcher not directly involved in patients' care. The survey did not incur patient costs; standard procedure of providing stamped addressed envelopes to return questionnaires, was used.

Consenting patients not responding after 21 days, were sent a follow-up duplicate questionnaire, to encourage response.

(4)DATA COLLECTION METHODS

Design

A comparative survey analysis, basic two group design was applied. Differences amongst or between groups of the dependent variable were measured where feasible, to allow for an estimation of effect.

Ethical Approval

Full ethical approval was not required; patient records were not used and the study was part of an ongoing service evaluation.

Outcome Measure

Previously validated service evaluation questionnaires for One-stop or urology outpatient clinics, were unavailable. Subsequently, two respective PS surveys both measuring quantitative and qualitative data, based around the PS questionnaire and taxonomy of patient satisfaction characteristics within the 'Determinants and Components' theory, were constructed. Logistically, only English language could be accommodated. To minimise biases, clinical specialists, public members and a sample of non-study, haematuria patients, were invited to review questionnaire content during brief, informal, pilot interviews. Responsive amendments were made (reducing questionnaire completion time and use of non-technical, non-clinical language). A second, pilot distribution of questionnaires took place with ten haematuria patients attending the assigned clinics. Related responses were reviewed and questionnaires approved.

(5)DATA ANALYSIS

Data management and analyses were conducted using SPSS software (SPSS Statistics 17.0, Chicago, IL, USA). Complex analysis with a small dataset was inappropriate, meaning caution was observed during interpretations. Both complete and incomplete cases were used; excluding incomplete cases would further restrict the data set.

Data analysis was exploratory and any statistically significant results should be confirmed in future, fully powered independent studies. Current data will inform sample size calculations for further research.

Scoring

Surveys contained closed ended; both likert-type and multiple choice items, and open ended questions (unstructured). Level of measurement was typically ordinal, facilitating rank ordering of responses; excellent (4), good (3), acceptable (2) or poor (1), (0 being unknown / no response).

Narrative comment themes were identified using content analysis. Comments were categorised according to clinic group, main PS theme and sub-theme, then rated: positive, negative, neutral or service improvement.

(6) RESULTS

52 patients (21 = route A; 31 = route B) responded to questionnaires (overall rate: 51%). Table 3 summarises the demographics and employment status of the patient sample.

Table 3: Demographics and Employment status for Patient Sample ***(* Valid percentage: not including no response categories)***

Results according to Patient Satisfaction Themes

Content Analysis: Narrative comments

71.2% respondents made 45 comments; 57.8% were rated positive, 26.7% negative, 2.2% neutral and 13.3% were improvement suggestions. Proportions were consistent for all comment types, for both clinics.

Availability and Time

- ***Referral time for appointment***

Quantitative responses showed almost a third of patients waited over 21 days for appointments. Between groups, there was a significant difference for referral period length; route A typically waiting longest (see figure 3):

Z = -2.76; p < 0.01.

Figure 3: Comparison of GP Referral Periods for One-stop Haematuria patients versus Urology Outpatients

Length of time at appointment and associated anxiety

Route A appointments lasted on average 7.5 hours, being a concern for only 10% of patients. In contrast, typical route B appointments lasted <3 hours; yet was a concern for almost a third of patients (27.6%). Despite overall minimal concerns, other than two suggested service improvements, *all qualitative* comments for Availability and Time were critical. This was the most criticised route B theme (87.5% of comments), with service improvements focusing upon increasing efficiency in respect of waiting times.

Environment

Scores were comparable between groups for clinical environment satisfaction; over 95% of route A patients rated this good / excellent and 80% in route B. Environment received least (3) narrative comments; complaints related to overcrowding and lack of privacy.

Accessibility & Convenience

Public transport was the most popular method to attend appointments; utilised by over 68.1% of respondents. Accessibility and convenience did not receive negative quantitative feedback and was significantly correlated with Overall satisfaction for route A;

$r_2 = .512$, $p < 0.05$

Again qualitative comments were paradoxical to quantitative data; for the One-stop clinic criticism related to consultations being held in separate buildings. For route B, several patients complained narratively, offering practical suggestions for service improvements (eg: parking / storage).

Quality of Care

Table 4: Quantitative Patient Comments for Quality of Care theme

Pre-clinic information was quantitatively rated by the majority as excellent (route A) and good (route B), (see table 4). Conversely, this received negative qualitative comments from some route A patients; suggesting clearer patient information, particularly pre-appointment, to ease transitions through One-stop investigations.

A significant difference in patients' ratings for Nurses between clinic groups, was found; 57.1% of route A patients rated 'care and information provision' as excellent at the Nurse-lead clinic. Route B's ratings were more normally distributed; 58.3% rated this good or acceptable.

$Z = -2.45; p < 0.05$.

For route B, overall satisfaction was determined by Quality of Care, with significant correlations: **$r_2 = 0.692, p < 0.05$**

Overall Patient Satisfaction and Service Improvements

Overall satisfaction feedback was optimistic; 8/9 comments were positive, with mainly excellent ratings. Many patients expressed gratitude and 90.5% of route A (figure 4) and 71% route B patients (figure 5), would prefer to attend urology appointments on a One-stop visit (majority 82%), over multiple. No route A patient explicitly expressed a preference for route B.

Figure 4: Clinic preference for patients attending Haematuria clinic Route A

Figure 5: Clinic preference for patients attending Haematuria clinic Route B

A route B patient commented 'tests should definitely be all on the same day;' maximising efficiency 'to promote quicker diagnosis, in turn minimising anxiety.' Similarly, of patients anxious about appointment length (n=4), 75% expressed preferences for One-stop services.

For the few (n=4) preferring separate appointments, physical health was a main determinant; patients felt tiredness, treatment or pain experienced would be too great in a single day.

Over half (52.6%) of route A respondents said their clinic could not be improved; compared to 32.1% for route B; resulting in a statistically significant difference between groups:

$X^2 = 7.663$, df = 2, $p < 0.05$

(7) CONCLUSIONS

Demographics

Demographics for respondents suggest haematuria is most common in males, 60+ years; consistent with literature, due to increased risk factors *(Kelly et al. 2009).* A more varied demographic sample may have obtained a greater distribution of views, however would be unrepresentative of the target population.

Satisfaction themes

a) Availability and Time

- ***Length of Referral time***

Contradictory to the purpose of One-stop clinics, route A patients had longest referral times; many waiting beyond the 2WW. The system can have drawbacks of selective prioritisation; patients without cancer are prioritised and many whom have serious disease, are deprioritised; questioning feasibility of government protocol for suspected cancer referral from primary to secondary care, within the shortest time *(Department of Health, 2000).* This contributes to unreachable targets *(Hawary et al. 2008),* leading referrers to 'bend criteria' of the two-tier referral system. Subsequently, significantly more patients flood into the rapid queue than intended, escalating ever increasing referrals, decreased manpower and significant NHS cutbacks.

Waiting over two weeks for a hospital appointment can create dissatisfaction; several study patients described referrals as unorganised and unacceptable. As a safeguard, the assigned trust forewarns of possibilities of waiting beyond the 2WW, by listing on their NHS website,

the document 'Your right: urgent two-week referral' *(Department of Health, 2010).* Reminding patients of their 'legal right to be seen by a specialist within two weeks' of referral, it offers related advice and contact details, for all patients, regardless of clinic allocation.

- ***Length of time at appointment***

PS rates improved as visit length increased if forewarned; most route A patients who were aware their appointment would last throughout the day, were not anxious about time and had overall higher rates of PS. Yet, unprepared, long waits of unoccupied time may contribute to patients' psychological distress and create a sense of abandonment *(Paul et al. 2013);* reflected by route B patients, describing long delays as 'problematic and upsetting.' Prompt, expert care for patients with worrying symptoms aids them psychologically (*Sanmartin et al. 2007).*

b) Environment

For some time, research has suggested clinical environment makes minimal difference to PS *(McColl et al. 1996).* Quantitative data illustrated PS with both clinic environments, yet some qualitative remarks indicated dissatisfaction ('average,' 'cramped conditions' of the cystoscopy clinic waiting area in route A and 'lack of privacy concerning patient details' of route B's self-service check in). These common complaints within outpatients, of limited seclusion, confidentiality and respect, can impact upon a patient's physical and psychological well-being, whilst minimising contentment with care *(Lis et al. 2009).* Yet when patients experience privacy, PS with nursing care is enhanced.

c) Accessibility & Convenience

Accessing clinics was not a cause of dissatisfaction in this study. Despite widely dispersed facilities for One-stop investigations partly to blame for lengthened transit times, this was welcomed by most, based upon quantitative feedback. Interim appointment time is conducive to relaxing, *(Leinonen et al. 2001),* enhanced by route A's Haematuria clinic leaflet, listing local facilities to visit. Sufficient periods enable patients to get between appointments and aid staffing and clinic scheduling; facilitating continuity for all *(Ware et al. 1983).*

Frustrations with walking between appointments, particularly due to lack of signing, has been cited as a problem for One-stop urological services (*Coull et al. 2009),* as well as disabled accessibility. One-stop clinics may remain limited in this respect, and to be truly effective,

Coull et al (2009) argues for re-designing of outpatient departments; allowing administration, consultation, investigation, education and research to be conducted in close proximity.

Convenience to attend reduced if the patient took time off work, used increased transport, and invested more time and money. Specifically fuel and parking were the most significant inconveniences; *Callanan (2012)* found these to be within the top three expenses when attending hospital appointments. Unfortunately, in the current economic climate, with massive NHS debt mountains *(O'Dowd, 2011)*, charges are likely to be increased rather than cut. The fast-track approach can however positively impact both the patient and NHS financially; *Coull et al's (2009)* study of nine One-stop urological pilot clinics, saved approximately 550 patient hospital visits and 350 follow-ups and unnecessary investigations, compared to standard clinics.

d) Quality of Care

- Education and Information

Provision of comprehensive, accurate and clear information, throughout the patient journey, is a consistent need expressed and a strong satisfaction determinant for quality care (*Wallberg et al. 2011; Ware et al. 1984).* Nurses must acknowledge their ability to impact upon this through information provision and identify strategies to improve defects, to offer succinct education *(Frojd et al. 2011).* The One-stop clinic does so by providing patients with clinical documentation in real-time, using proformas (detailing histories and recent investigation findings), followed by a period of reflection after clinical interactions, before discharge. This patient-centered approach enhances communication and quality of care within complex interactions of interdisciplinary teams; but remains absent in traditional outpatient clinics; despite favourable patient responses *(Coull et al. 2009).* Route A patients could contact their Nurse Specialist, at any stage subsequent to referral, and received follow-up telephone calls, to discuss outcomes. This consistent, personalised support network promotes continuity of care; a main dimension within patient satisfaction (*Shirley & Sanders, 2013).*

Limitations

Although methodology was practicable in a service with a minimum dataset, there has been few service evaluations performed within urology; more specifically for haematuria clinics, against which this study can be compared. Additionally, it is acknowledged that investigating satisfaction with care is laden with methodological incongruencies

(Papastavrou et al. 2015) and unfortunately, consensus on a common, conceptual definition for patient satisfaction remains absent.

Measurement of the dependent variable using a comparative survey design should be considered accurate, yet as identified prior to this service evaluation, questionnaires are unavoidably biased, due to the nature of the research question and clinic design.

Concluding Remarks

Results of this study are consistent with previous literature; high levels of satisfaction being typically reported by outpatients *(Osbourne & Koya, 2013).* Recurrent contradictions of patient opinion indicated on many on the PS themes; is not atypical *(Lis et al. 2009)*; implying ambiguity and questioning the level of PS of these patients. However, patients expressed an overwhelming preference to attend a One-stop service as opposed to several appointments, with fewer suggested service improvements for the former. Frequently cited benefits of the One-stop clinic were based around fast, coordinated services, with tests and consultations performed on the same day. The One-stop design provides many of the service improvements suggested by Route B patients; most of which were developed from drawbacks of traditional clinics *(Ooi et al. 2011).* Subsequently, One-stop patients are more likely to return for care and recommend this service; both indicators of patient contentment *(May et al. 2009).*

Implications for Practice

Despite advantages of the One-stop system long being recognised (*Tan et al. 1998),* combined with the huge demand for integrated clinics, their numbers still remain small. This study would suggest room for improvement is still necessary in One-stop clinics; reflecting the ever pressing need for more efficient services. Further, accepting One-stop clinics as an alternative to more established approaches of haematuria investigation, does not necessarily meet the needs of every patient. A simplistic ‘one size fits all’ approach is outdated and requires refinement *(Mostafid et al. 2010).*

The aim of the discussed modifications for future research and services, would be to reinforce the needs of the haematuria patient through further evaluative studies, whilst monitoring,

evaluating and improving healthcare, based around these needs, in line with current NHS reform; contributing to overall service enhancement in urology.

Haematuria is a symptom of bladder cancer; meaning timely referral, assessment and diagnosis is crucial, particularly with the ever increasing referral list to urology outpatients. This can be facilitated by the One-stop haematuria clinic; which offers a streamlined, interdisciplinary, patient pathway.

The results of this current study add to the limited literature and provide evidence that factors of availability and time of appointments, clinic environment, accessibility and convenience of the clinic and quality of care (including information provision), substantially contribute to patient satisfaction. Patients who experienced the One-stop haematuria clinic had overall greater satisfaction than those attending standard urology outpatient appointments and suggested fewer service improvements. Yet, we must remain mindful that the needs of all patients may not be met by the One-stop service and future developments must consider the changing demographics of the patient population, as well as the continuous reform of the National Health Service.