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**Research Article**



# Patient Centered Post Abortion Family Planning Navigation Algorithm

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## 1. Abstract

**Introduction:** The success of a Postabortion Care program is associated with access to treatment, prevention of unintended pregnancies, access to Family Planning information, education, counseling for choice, and integration of other Reproductive Health services. The use of a client-centered structured algorithm could enhance access to post-abortion services by ensuring that women are linked to appropriate services. This paper presents a Client Centered algorithm for enhancing access to Post abortion care in Nairobi Kenya.

**Methodology:** Purposive sampling was used to select participants for Nominal Group Technique (n = 36). The objective was to design a client centered post abortion care family planning navigation pathway using a participatory approach. Nominal Group Technique with Round Robin was used to design the post abortion family planning Navigation pathway. Through a series of discussions and voting, as post abortion care client algorithm was designed.

**Results:** The Nominal Group Technique (NGT) reflected the collective agreement of stakeholders (>80%). These components encompassed an appropriate client Navigation pathway with an appropriate minimum service package, service delivery points, and timelines.

**Conclusion:** The Client Algorithm pathway ensured the application of a minimum service package for Post Abortion Care for enhanced communication, coordination, and continuity of care among post-abortion clients.

**Recommendations:** This Patient Navigation Algorithm for Postabortion Care services can be scaled up for use in improving patients' experience and improving women's reproductive health outcomes

## 2. Keywords:

Post Abortion Care (PAC), Nominal Group Technique (NGT), Algorithm, Navigation, Family Planning (FP), Patient Centered

## 3. Introduction and Background

The World Health Organization reports 13% maternal deaths to be linked to unsafe abortion. In Sub-Saharan Africa 37 deaths per 100,000 live births are associated with unsafe abortion [1]. The Post Abortion Care Model of 1990s [2] whose main objectives were to prevent unintended pregnancies, enhance family planning uptake, counselling and service integration for post abortion care client did not achieve its targeted objective [3]. Among the key recommendation of the PAC model evaluation was designing of context specific integration models to enhance service access [4]. Furthermore, system thinking approach for more improved infrastructural framework and processes is gaining popularity in patient Navigation in health care setting [5-9]. There is overwhelming evidence that maternal health outcomes is much more improved with intervention that include health systems strengthening aspects besides the clinical aspects [7-11]. The WHO call to Action of the year 2007 emphasizes the significant role played by health system strengthening as a leverage point in accelerating achievement of SDG targets [12] and calling upon member states to prioritize systems approach in their interventions to realize maximum benefits. Weak patient navigation systems have been associated with inefficiencies and unsatisfactory patients experiences with the Post Abortion Care services affecting PAFP uptake [1,13-18]. By effectively navigating post abortion care patients to the complex health system setup when they access care, their experiences can be highly improved and this period can be leveraged on to appropriately integrate other Reproductive Health services and enhance patient health outcomes [19,20]

## 4. Integration of Post Abortion Care Services

Integration of post abortion family planning and other RH into post abortion care strategy purposed to enhance women health outcomes resource poor settings [21].

The essential elements of PAC entailed; Prevent unwanted pregnancies and unsafe abortion through community education and referrals; Counseling and psychological support; Treatment to include management of life-threatening complication; Family planning and contraceptive services as well as Reproductive Health and other health services integration and referrals [22,23]. However, the aspect of health system strengthening was given minimal attention and most patients seeking PAC services were admitted at the acute gynecological wards for care in most care set ups in developing counties [24]. Most of these patients would be discharged home following immediate treatment as the structural

facility frameworks was not clearly set up with a focus to structured client navigation and linkage to other RH services. Although multiple studies on Postpartum care [25] to include post-partum family planning are have been conducted, a couple of these have focused on PAFP Integration and with the recommendations on the need for a clear linkage mechanism [26-28]. In response to these recommendations, the objective of this study was to design a patient centered algorithm for navigating patients seeking care for the treatment of abortion related complications. The aim was to enhance the experiences and improve PAC client service integration for better health outcomes for the women. The study endeavored to answer the question: *“Is a structured strategy appropriate in improving navigation for Post Abortion Care Clients within the health settings?”*

## 5. Methodology

A Purposive sampling was used to select participants (n=36). for a Nominal Group Group Techniques of (NGT). The round-robin process within 6 groups comprised of; County Health Managers (6); Facility managers (12); Service providers (12); RH partners & policymakers (3) and Post abortion (PA) Patient representatives (3). The formation of these groups was found appropriate for the NGT participatory study methodology according to the recommendations of methodology experts [29-31]. The process entailed engaging the participants in a half day meeting to develop the algorithm. These participants were randomly assigned into 6 small groups (coded) after initial large group climate setting and introduction of the agenda [32]. The Round-Robin process was applied within the small groups who presented only key point for each thematic component and presented in plenary for consensus [32-35]. The Thematic components entailed: Minimum service package; follow up duration and; appropriate service delivery points for referrals. This approach as applied in NGT Round Robin has been found appropriate [36-38].

## 6. Results

To need to development of the patient Navigation algorithm was the 1st assignment that was done in plenary with 89% Agreement. Following small group discussion voting and final agreement in the plenary. Generally, individual participants achieved 87% agreement rate for patient Navigation algorithm/pathway; 95% for the minimum service delivery package being 97% for Initial Care and 92 % for follow up care; 93% for both Navigation Algorithm/client pathway and the scheduled appointment Post Abortion care client follow up duration. This is as per the outlined in the table below;

**Table 1:** Priority components for the Clinical Setting Patient Navigation Algorithm/Pathway.

Components	Questions	List	Rationale
Minimum Service Package ( 92%)	Outline the Minimum Priority Service Package for integration PAC Client Centered Algorithm	Initial Care ( 97%) 1.Treatment of Life–Threatening Conditions 2. Uterine Evacuation 3. Counselling 4. FP Information and Counselling 5, FP Method Options  Follow Up (92%) Clinical care for abortion complication , Screening & treatment for HIV & AIDs/STI & other infections, Cervical and Breast cancer screening; Infertility Counselling  Overall Score: 95%	As per PAC Clinical setting critical elements  Follow up for continuity of client Centered holistic care
Follow Up Appointment durations (92%)	State the most appropriate timelines for follow Up Appointment durations	1 <sup>st</sup> Visit: Within the first 3 days 2 <sup>nd</sup> Visit: Within the 1 <sup>st</sup> 14 Days after the initial visit 3 <sup>rd</sup> Visit : Within the 1 <sup>st</sup> 3 months after the second visit 4 <sup>th</sup> Visit: with subsequent 3 Months (after the 3 <sup>rd</sup> Visit and by 6 Months after abortion)  Overall Score: 83%	Immediate acute clinical care to assess and treat complications  Initiation of FP, Continuity of FP support and Integration of services for enhanced maternal health outcome to include preparation for the subsequent conception after 6 months as per WHO recommendations ( Pre conceptual care o
Service delivery Points (92)	List the Critical Service delivery Points for PAC service Access with Health Facility Setting	1 <sup>st</sup> and 2 <sup>nd</sup> Visit: PAC SDP  3 <sup>rd</sup> Visit: PAC/MCH/FP or as referred (HIV& AIDS Treatment Units? Cancer Screening Service Units/Other)  4 <sup>th</sup> Visit: PAC/MCH/FP or as referred ( other)  Overall Score: 83%	Service Integration for Client Centered Holistic Care.
Agreement of the 3 components	OVERALL SCORE for the 3 components 87%		>85% Agreement Rate

To actualize the follow up appoint schedules, the group agreed in plenary (100% consensus) to design a PAC Client Follow up Card and format the algorithm design for printing.

**6.1. Patient navigation algorithm**

The Post Abortion Care Client Navigation algorithm is to be applied in guiding the service providers in navigating the Post abortion care Clients through the busy complex health care settings within the health care facilities. The services include; Client referral pathways

and minimum service package to be provided at various service delivery points. These were ; Treatment of Life–Threatening Conditions; Uterine Evacuation; Counselling Information and Counselling; Family Planning (FP) Method Options; Clinical care for abortion complication such as screening and treatment of HIV 7Aids/STI & other infections; Cervical and Breast cancer screening Infertility Counselling and referral.

**6.2. PAC follow up card**

All the PAC clients were provided with Client follow up

card that had their Biodata, appointment dates/ follow-up schedules. This made it feasible to streamline the client follow up appointments for enhanced communication between the service providers and the clients, coordination of services between the various service delivery points and improved continuity of client centered holistic care. These schedules outlined the recommended visits for Immediate acute clinical care to assess and treat complications, initiation of FP, Continuity of FP support and Integration of services for enhanced maternal health outcome to include preparation for the subsequent conception after 6 months as per WHO recommendations (Pre conceptual care).

**6.3. Post abortion care daily activity register**

Without any formal Ministry of health register available in the facilities, accountability is likely to diminish and lack of data for planning could be a huge challenge in overall. The register captured client’s biodata, clinical assessment, diagnosis and care elements as follows;

1. The PAC Daily Activity Register captured client’s biodata to Include
2. The name
3. Age, Outpatient Number/Inpatient Number
4. Date of admission
5. Diagnosis
6. Services offered
7. (HTC, Results)
8. PAC Services- MVA/D&C/Medical, Counselling)
9. Family Planning (information, counselling & service uptake)
10. Referral /Linkage/Integration with remarks on the final column

A referral Directory was also developed to guide service providers and patients in identification of service providers external to the facilities. A sample is provided below.

**6.4. Referral forms**

For ease of Navigation, a referral form was key in coordinating and communicating care. The referral form booklet was designed with referral form in triplicate - client is given 2 extra copies to take to the receiving site. Triplicate copy retained in the booklet. Receiving sites would fill both forms, retain one and the client returns the last form to the referring facility/department. The receiving site kept files of referral forms for a complete feedback cycle. An illustration diagram is provided in figure 5 below.

The figure below illustrates the Patients Algorithm for the PAFP Linkage & Referral patient Navigation pathway.

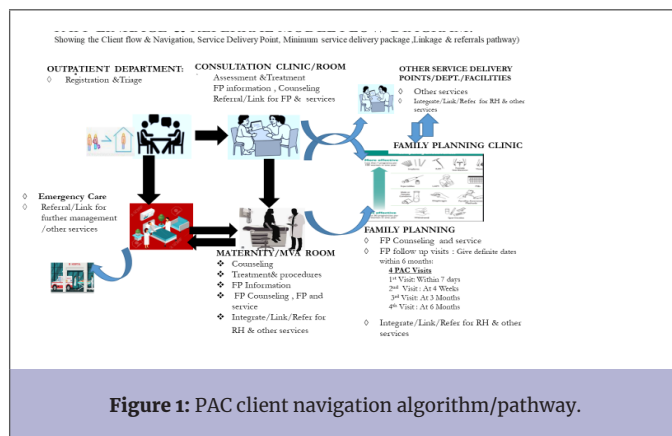


Figure 1: PAC client navigation algorithm/pathway.

Figure 1 above illustrates the: PAC client Navigation Algorithm/Pathway for guiding client navigation within the complex health care facility settings. It shows the service delivery points and service package to be provided at every point since admission to discharge with referral/integration for context specific adoption.

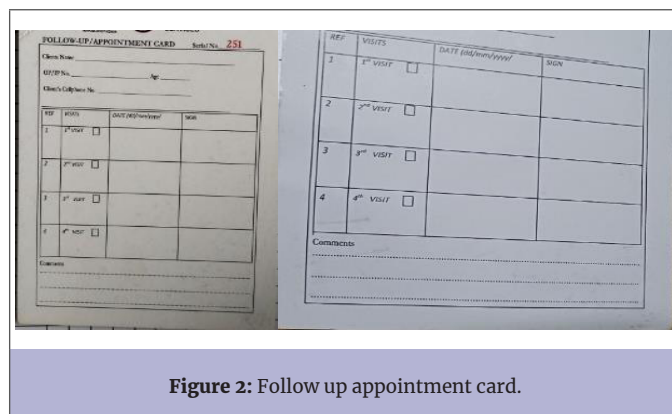


Figure 2: Follow up appointment card.

Figure 2 above shows the PAC client Appointment card/follow up card. This card has the client’s name, OP/IP Number, Age, client cell phone number. It has a 4-visit scheduled mandatory follow up appointments within the 1st 7 days (1st Visit), within the first 4 weeks (2nd Visit); within the 3 months (3rd Visit) and within 6 months (4th Visit).

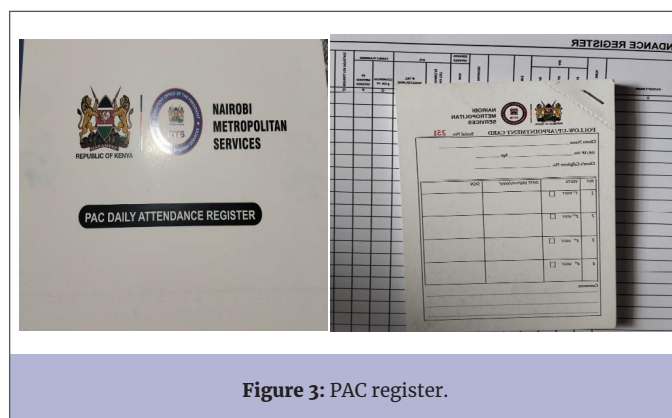


Figure 3: PAC register.



**Table1: Family planning referral directory.**

Name of Health Facility _____ Sub County _____ Other health facilities offering Family Planning Services in this region						
	Facility Name	Ownership	Physical location	Opening Hours	FP Services Offered YES/NO	Phone Numbers
1.						
2..						
3.						
4.						
5.						
6.						

Notes: Service provider should inform the client list of facilities in the area that offer FP services to assist the client choose the most preferred health facility for FP & follow up

**Read the Instructions**

- This form is in triplicate (Facility keeps one copy, patients submits the other 2 forms to the receiving site for signing then retains the original and the 3rd copy is delivered by the client to the receiving Facility/ Clinic

Client’s OP/IP No. \_\_\_\_\_ Age \_\_\_\_\_ Client’s Cellphone No. \_\_\_\_\_

**LINKAGE/REFERRALS**

- Referred from: \_\_\_\_\_ (Clinic/ Facility) Referred to: \_\_\_\_\_(Clinic/ Facility)
- Did the client receive the services they need today? YES/NO

Reasons for referral.....

- Referred by \_\_\_\_\_ Cellphone No. \_\_\_\_\_ Date: \_\_\_\_\_
- Did the client receive the services they were referred for? YES / NO
- Received by \_\_\_\_\_ Facility/Clinic/Dept. \_\_\_\_\_ Date \_\_\_\_\_

**7. Strengths and Limitations**

Generally, the overarching goal of using Nominal Group Technique was to ensure a systematic approach is applied in achieving an agreement among the various stakeholders on the most practical components of Post abortion care client Navigation algorithm. Some of the limitations of the study included the samples size that was higher than the recommended size of 6-8 participants [32]. The time was a challenge since the 36 participants had to undertake initial discussions in their small groups before engaging with the plenary. The process took exactly 90 minutes and was extremely hurried. Most of the participants were service providers with a few (3) patients and this was appropriate since these were the main users of the algorithm. Despite the time challenges, a lot of information was generated that ensured comprehensiveness of the algorithm.

**8. Conclusion**

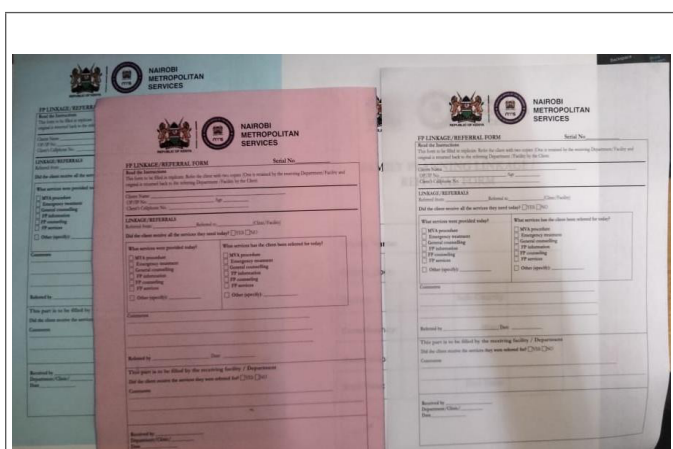
The Client Algorithm pathway ensured application of a minimum service package for Post Abortion Care. It promoted integration of other Reproductive Health (RH) service in to Post abortion Care set ups and increased the likelihood of enhanced communication, coordination and continuity of care among post abortion clients.

Recommendations: This Patient Navigation Algorithm for Post abortion Care services can be replicated in other settings for enhancing Integration Family Planning and other RH services.

Future research can focus on evaluating the effectiveness of the Algorithm in enhancing service access, communication, coordination and continuity in different settings to optimize post abortion care and contribute to improved patients’ experience and improve women’s reproductive health outcomes.

**9. Acknowledgment**

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**Figure 4: Patients Referral forms.**

broad team of technical experts, service providers and, the research assistants for the great support during the interviews and data management process. I would like to also thank the patients who volunteered their valuable time, information and commitment in sharing their experiences and insights to inform the findings of this study. I thank all the patients (women of Reproductive age) without whom this work would not have been possible. To all contributors and collaborators, these contributions will go a long way in improving the experiences of patients in the study settings and beyond. It is with immense modesty that I pass my sincere gratitude to you all.

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