

Review of MCD Polyclinic in Nizamuddin Basti

1.0 Background: The MCD polyclinic was established in the year 2006 and is eccentrically located within the Nizamuddin Basti. The clinic is run by the Municipal Corporation of Delhi (MCD), and caters to the primary health care needs of the Basti population and also adjoining areas. The clinic has an average patient load of 100-120 persons per day. Most of the patients belong to Nizamuddin Basti; some visitors to the Dargah also visit the clinic for seeking treatment.

Based on the need assessment done during March 2008 by consultant doctors from AIIMS in support with AKDN staff the health intervention at Nizamuddin Basti was started with the upgrading of services at facility level. In this regard, the following activities have been done at the MCD polyclinic to upgrade the services:

- ✓ Established a pathology laboratory for conducting routine tests (blood, urine and stool), along with placing a pathologist, laboratory technician and laboratory assistant.
- ✓ Provided advanced equipment for eye and ENT specialist for diagnosis and treatment
- ✓ Provision of a gynaecologist and equipment for starting OPD for the women, and appointed an ANM as support staff.

The upgraded facility started functioning since August 2008 various services provided will be discussed in subsequent headings. As discussed above the MCD polyclinic now equipped to provide better facility for diagnosis and treatment. However there are many health needs of the population staying in Nizamuddin Basti which cannot be comprehensively addressed at the polyclinic. In this regard a review on the functioning of the polyclinic conducted during January 2009 to assess the smooth functioning, challenges and problems and identify cases that require referrals and follow up. There was also an attempt to know the requirements in terms of equipments, test kits and cost implication that needed to be provided on the basis of needs assessment.

2.0 Objective:

The objectives of the review were as follows:

- ✓ To analyze the morbidity profile of the patients visiting general practitioners and specialists.
- ✓ To identify cases that requires referral and continuous follow up.
- ✓ To assess the available services at the MCD polyclinic and the need for up gradation.
- ✓ To find the challenges and issues related to the functioning of the MCD Polyclinic.
- ✓ To gauge the perceive level of satisfaction among the patients visiting the polyclinic.

- ✓ To highlight the requirements in terms of services, supplies, referrals and follow ups that required immediate attention.

3.0 Methodology:

Qualitative methodologies like discussion and in-depth interview with Resident Medical Superintendent, specialists (medical, ophthalmologist, ENT specialist, Gynaecologist and Pathologist) and staff; semi structured exit interview conducted with the patients visited different specialist and observation and analysis of the data maintained at the polyclinic.

4.0 Samples covered:

Person	Number	Method
Resident Medical Superintendent	1	In-depth interview
Ophthalmologist	1	In-depth interview
ENT Specialist	1	In-depth interview
Gynaecologist	1	In-depth interview
Pathologist	1	In-depth interview
Paramedical staff	5	In-depth interview
Patients visited Ophthalmologist	10	Semi structured interview
Patients visited ENT	10	Semi structured interview
Patients visited Gynaecologist	10	Semi structured interview
Patient Visited Pathology laboratory	20	Semi structured interview

5.0 Summary of Findings

5.1 Current staffing

The status of the MCD sanctioned posts and the current status is as mentioned in the table.

Position	Status 31 st February 2008	Current Status 31 st December 2008
Full time positions		
Polyclinic in charge (RMS) also act as a GDMO	Sanctioned 1 post	Filled
GDMO	Sanctioned 1 post	The present GDMO is on leave since 13 th October
Auxiliary Nurse Midwife	Sanctioned 1 post	Vacant Provision filled by AKDN Intervention
Dresser	Sanctioned 1 post	Vacant ANM Provided by AKDN also working as a dresser
Pathologist	Not sanctioned	Provision filled by AKDN Intervention
Senior Pathology Lab. Technician	Vacant	Provision filled by AKDN Intervention

Position	Status 31st February 2008	Current Status 31st December 2008
Junior Lab. Technician	Sanctioned 1 post	Vacant Provision filled by AKDN Intervention
Pharmacist	Sanctioned 2 posts	Filled
Lower Division Clerk	Sanctioned 1 post	Vacant
Ward Boy / Aaya	Sanctioned 3 posts (2 males and 1 females)	
Sweeper	Sanctioned 3 posts	Filled
Chowkidar (Guard)	Sanctioned 3 posts	Effective presence is 1
Visiting specialists		
Gynaecologist	Vacant	Provision filled by AKDN Intervention (Every Wednesday)
Ophthalmologist	Visiting staff (once a week – Thurs)	Visiting staff (once a week – Thurs)
ENT	Visiting staff (once a week – Sat)	Visiting staff (once a week – Sat)
Medical Specialist	Visiting staff (twice a week – Tues/Fri)	Visiting staff (twice a week – Tues/Fri)

Need:

General Duty Medical Officer (GDMO): According to the Polyclinic In-charge Dr. Pramila Srivastava, the current status of the man power to run the clinic is not sufficient. The up gradation of the Polyclinic by providing a pathology laboratory where free tests are conducted is gradually increasing the patient load. In the long absence of GDMO, it was difficult to handle the patient by the RMS who is also looking after the administrative work of the polyclinic as well as working as a GDMO. Besides Tuesday and Friday, the day for visiting medicine specialist all the other four days it is difficult for one doctor (RMS) to see the general patients.

The future proposed outreach activity by AKDN would definitely increase in patient in flow to the clinic. Looking at the increase in patient load it was felt that 2 additional GDMOs are required at the Polyclinic.

Visiting Specialist:

Eye Specialist: After up-gradation there was 34 % increase in the patient load at the MCD polyclinic on Eye OPD. This would further increase in the future. Against this backdrop it would be better in order to ensure quality of service the eye OPD may be conducted twice a week. MCD may be requested to increase the visit of the eye specialist by 2 days.

ENT Specialist: There was 21 % increase in the patient load at the MCD polyclinic on ENT OPD. This would further increase in the future. MCD may be requested to increase the visit of the ENT specialist by 2 days.

Paediatrician: From the discussion with Dr. Pramila Srivastava it was found that the polyclinic is mostly visited by woman and children. The arrangement of gynae services now looking after the problems related to women and adolescent girls. But for the children one paediatrician visit is required.

Lab Technician: The MCD has sanctioned one post for an assistant lab technician which is not filled yet. Looking at the patient load on pathological lab MCD should provide for a senior lab technician in place of assistant lab technician immediately.

Chowkidar: There are three sanctioned post of chowkidar. Out of three only two posts are filled. But in reality only one chowkidar is giving his services and other is on prolonged leave. The Polyclinic which has been upgraded last year is full of with costly and important utility equipments related to pathology lab, ENT and Eye. It becomes pertinent to ensure the security of the polyclinic and the equipments placed in it. Therefore, for the round the clock security four chowkidars are required. According to Dr. Srivastava it should be the first priority.

5.2 Infrastructure and equipment

5.2.1 Space: The polyclinic is situated on the ground floor, is spacious and at present has three functional doctors' cabins, dressing room, pharmacy and store. The vacant one room is provided to the community out reach team of AKDN.

5.2.2 ENT: Earlier basic examination equipment was available for the ENT specialist. Based on the needs assessment done in March 2008 various essential equipments are provided to the MCD Polyclinic by AKDN. The details of the equipments provided are attached in **annexure 1**.

5.2.3 Ophthalmologist: No diagnostic equipment was available for the visiting ophthalmologist. Symptomatic Treatment was only provided by the visiting Ophthalmologist and most of the cases were only referred to higher center for diagnosis and treatment. However based on the needs assessment done in March 2008 various essential equipments are provided to the MCD Polyclinic by AKDN. The details of the equipments provided are attached in **annexure 1**.

5.2.4 Pathology Laboratory: There was no diagnostic laboratory in the MCD Polyclinic. Earlier before the up gradation of the polyclinic urine pregnancy test kits and urine sugar testing strips were available. The post of laboratory technician was lying vacant. The initiatives by AKDN along with the equipments, chemicals and glassware (**for details see annexure 1**) also made the provision of visiting pathologist, a laboratory technician and laboratory assistant.

6.0 Services and Challenges

This section deals with the types of services provided at the polyclinic in general and also on the types of specialized health care. In this regard in depth interviews were conducted with Resident Medical superintendent, Visiting specialists and staff. The findings of the in depth interviews was also supplemented with the findings of the services availed by the patients visiting the polyclinic. The findings are as discussed below.

6.1 General Medical Services: the general medical treatment is provided at the MCD polyclinic mostly on the ailments like

- ✓ Acute respiratory tract infections
- ✓ Fungal infections
- ✓ Diabetes mellitus
- ✓ Hypertension
- ✓ Ear infections
- ✓ Acute gastroenteritis
- ✓ Anaemia
- ✓ Skin disorders (scabies, pyoderma)
- ✓ Menstrual disorders (Now taken care by visiting Gynaecologist)
- ✓ Female genital infections (Now taken care by visiting Gynaecologist)
- ✓ Gastritis/ulcers
- ✓ Chronic obstructive airway disease
- ✓ Viral fevers
- ✓ Worm infestations

The general medical care is provided by the Polyclinic in charge (Resident Medical Superintendent), supported by the 2 GDMO on daily basis. The visit of a medicine specialist (twice a week) also provides support for the treatment of the general patients. However the absence of one GDMO and the long absence of the already sanctioned GDMO were posing a problem in the functioning of the polyclinic. As a result the RMS besides her administrative role was also looking after patients.

6.2 Eye care:

As discussed earlier through the AKDN intervention the MCD Polyclinic was provided with advanced eye care equipments. The lists of the equipments are in annexure 1. The percentage wise morbidity profile of the patients those who visit the Eye OPD according to ophthalmologist Dr. Rakesh Prasad who visits the clinic every Thursday was

- ✓ 25 % to 30 % were cases of Conjunctivitis
- ✓ 35 % to 40 % were cases of Refractive error (diminution of vision)
- ✓ 20 % to 25 % were cases of Cataract (Mostly senile cataract, among 50 years and above) and
- ✓ 15 % to 20 % were other cases like Glaucoma, Uveitis, Retinopathy, Squint, etc.

From the record maintained at the MCD polyclinic and by the eye doctor it was found that since August 2008 there was a marked increase in the patient inflow. From January 2008 till July 2008 the average monthly visit of the patient was about 56 and from August 2008 the average turns out to be 86 patients for month an increase of 34 %.

This increase of patient was mostly because of the facilities available at the MCD polyclinic. According to the eye specialist the equipments provided by AKDN was of great help in carrying out the diagnosis and providing treatment. The equipments are helping in the diagnosis of cataract and accordingly are referred to higher centers. The availability of trial box, refractometer, slit lamp, ophthalmoscope, made it easy to diagnosis and treats the cases of refractive error by prescribing suitable number of

spectacle to be used by the patient. The slit lamp helped in diagnosing and treating cases of disorders affecting outer segment of eye like, Keratitis, Conjunctivitis, Scleritis, etc. On the other hand with the availability of direct ophthalmoscope the diagnosis and treatment of high refractive error and various retinopathies were done at the MCD polyclinic level.

Referrals: before the up gradation of the eye OPD at MCD polyclinic most of the cases were referred to higher center. According to the doctor with the provision of essential equipments the number of referrals has reduced by 50 %. However the Eye OPD at the MCD Polyclinic cannot treat all the disorders. Some of the cases that require referrals to higher center are

Cataract Surgery: The cataract surgery cannot be done at the MCD Polyclinic as there is no minor operation theater. On an average about 20 to 25 % of the patient mostly belonging to the age group of 50 years and above visit the MCD polyclinic. These cases are always referred to higher centers like, Rajendra Prasad Eye Center (AIIMS), Safdurjung Hospital and Guru Nanak Eye center.

Glaucoma: Non treatment of Glaucoma may result in blindness. All the Glaucoma cases are referred to higher centers. According to Eye specialist if an Aplanation Tonometer is fitted with the exiting Slit Lamp about 60 % of the Glaucoma cases can be treated at the MCD Polyclinic. The other 40 % which may require intensive treatment (perimetry test and surgery) may be referred to higher centers.

Retinopathy: Retinopathy is a general term that refers to some form of non-inflammatory damage to the retina of the eye. Most commonly it is a problem with the blood supply that is the cause for this condition. The patients with this type of problems are also referred to higher centers. During the discussion with the eye specialist it was found that an Indirect Ophthalmoscope will help in diagnosis of different types of Retinopathies.

Health Education:

The issues that are essential to counsel the patients are

- ✓ Nutrition and food requirement for better eye care (green vegetables, Vitamin A)
- ✓ Proper light during reading
- ✓ Importance of regular eye check up
- ✓ Eye exercise

Exit interview with the patients visiting Eye OPD

10 patients those visited the EYE OPD were interviewed to find out their level of satisfaction and their further expectation. Besides 6 patients, 4 others visited the Eye OPD for the first time. 5 patients were having vision problem, 3 patients also complained of watering of eyes along with other problems. One patient was having cataract problem. All the patients were checked and medicines were provided. However some of the patient reported of not getting medicines and eye drops prescribed by the doctor. Only the

cataract case was referred to Safdurjung hospital. All of them stated to be satisfied on the diagnosis and check ups and the overall rating were recorded to be 4.2 out of 5.

The Eye patient desired that all the medicines should be available at the Polyclinic and some of them also want that spectacles should be available at the polyclinic.

6.3 ENT care

As discussed earlier through the AKDN intervention the MCD Polyclinic was provided with advanced ENT care equipments. The lists of the equipments are in annexure 1. The percentage wise morbidity profile of the patients those who visit the ENT OPD according to ENT specialist Dr. Piyush who visits the clinic every Saturday was

- ✓ 20 to 25 % were cases related to Nose (Rhinitis & Sinusitis)
- ✓ 40 % related to throat
- ✓ 40 % related to Ear

From the record maintained at the MCD polyclinic and by the eye doctor it was found that since August 2008 there the number of patient visiting the polyclinic with ENT problems increased by 21 %. From January 2008 till July 2008 the average monthly visit of the patient was about 76 and from August 2008 the average turns out to be 96 patients per month.

This increase of patient was mostly because of the facilities available at the MCD polyclinic. According to the eye specialist the equipments provided by AKDN was of great help in carrying out the diagnosis and providing treatment. With the availability of Oscope the detection of perforation became easy. The suction machine is helping in waxing and cleaning.

Referrals:

Chronic Ear Discharge: Patient with ear drum perforation visit the clinic very often. Almost 50 % of the patient with ear problem mostly complains of ear drum perforation. Almost all of the patients with these problems required surgery. For Maringo Plasty all these patients are referred to either Safdurjung hospital or AIIMS. According to the ENT specialist a provision of minor Operation Theatre at the MCD polyclinic can conduct these surgeries. Besides infrastructure to run a small OT requires 2 staff nurses, 1 OT technician, 2 ward boys, 1 sweeper in terms of man power and 4 beds. The establishment of minor OT will be cost intensive.

Chronic Sinusitis: Sinusitis is an inflammation of the Para nasal sinuses, which may or may not be as a result of infection, from bacterial, fungal, viral, allergic or autoimmune issues. Chronic sinusitis required surgery and all the surgery cases are referred to Safdurjung hospital, Lok Nayak Hospital or AIIMS. The pressure on these hospitals is so much that a patient has to wait for at least one to two months to get the surgery done.

Health Education:

The issues that are essential to counsel the patients are

- ✓ Care of ear (Not to use buds)

- ✓ Wax Cleaning
- ✓ Noise and its impact
- ✓ Nose Care
- ✓ Oral Hygiene

Exit interview with the patients visiting ENT OPD

11 patients those visited the ENT OPD were interviewed to find out their level of satisfaction and their further expectation. Besides one patient all of them visited the ENT OPD for the first time. 3 persons each were having nose and throat problem and 6 were having ear problems. Of all the patients only 2 were referred to higher centre like AIIMS and Safdurjung hospital. Four patients reported to be very satisfied and as most of them visited for the first time therefore could not provide their respective judgements. However in a 5 point scale satisfaction level the overall satisfaction rate reported to be 3.8. The ENT patient desired that all the medicines should be available at the Polyclinic.

6.4 Gynaecologist services

As discussed above the health intervention by AKDN in order to strengthen the health services for women made the provision of a visiting gynaecologist to the MCD Polyclinic. The services resumed since august 2008. The gynaecologist visits the MCD polyclinic every Wednesday. To run the Gynaei OPD an ANM was also appointed to support the Gynae service. The Morbidity profile of the patients visiting the polyclinic according to Dr. Upasana is

- ✓ Among the younger age group cases of Polycystic Ovarian diseases (related to abnormal periods) were observed
- ✓ Among the older reproductive age group more cases of DUB (Dysfunctional Uterine Bleeding) and Fibroid Uterus were noted.

Since August 2008 to 31st December 2008 the total number of patients those visited the Gynaecologist OPD were 357. The age wise morbidity profile is as provided in the table.

Diseases / Purpose	Age			Total	%
	15 – 18 years	19 – 45 years	45 Above		
Pregnancy	1	46		47	13
DUB (PCOD)	10	38		48	13
PID		71	4	75	21
Vag. Diseases	9	39		48	13
Menopause		3	3	6	2
Backpacks	1	5		6	2
Miscellaneous	3	94	2	99	28
Ca cervix			1	1	0
STD			1	1	0
Infertility		10		10	3
Delayed	1	11		12	3

menstruation			
Uterus prolapse	2	2	1
Fibroid uterus	2	2	1
Total patient		357	100

Referrals:

Out of the 357 patient a total of 40 patients were referred to higher centers and most of them about 50 % were cases of pregnancy.

CASES	Total
Pregnancy	21
USG	10
DUB	3
Investigation	
✓ T3	
✓ T4	
✓ TSH	10
✓ FSH	
✓ LH	
Incomplete Abortion	1
PID	3
Total Patient	40

Among referrals in case of pregnancy 3 types of cases were always referred like incomplete abortion, normal pregnancy and early pregnancy if diagnosed. Most of the cases are referred to MCW center at Bhogal.

According to the gynaecologist a strong referral unit is required for the following cases

Referral Services Required	Cases / Patient	Current Case load
Ultra Sound	<ul style="list-style-type: none"> ✓ In complete abortion ✓ DUB (Dysfunctional Uterine Bleeding) among reproductive age group ✓ Delayed periods (among young girls) (PCOD) 	4 to 5 cases / Month
HSG (X-Ray, Hysterosalpingogram)	Infertility	4 to 5 cases / Month
Blood Investigations <ul style="list-style-type: none"> ✓ FSH (Follicular Stimulating Hormone) ✓ Prolactin Hormone ✓ LH Blood Thyroid	<ul style="list-style-type: none"> ✓ PCOD 	15 to 20 cases / Month

✓ T3		
✓ T4		
Urine culture	✓ Detecting infections	4 to 5 cases / Month
Semen Test	✓ Infertility	

On Medicines: The MCD Polyclinic supplies all the medicines required for the treatment related to gynaecology. However some of the medicines are not available at the Polyclinic but are important according Dr. Upasana the visiting specialist.

Name of the Medicine	Requirement	Purpose	Comments
Progesterone Tablet	1000 tablets	Regulation of period	All these tablets may be procured from the MCD supplies and in cases of unavailability AKDN may make the arrangement.
Evion	1000 tablets	Breast Pain	
Oral Contraceptive Pills	100 tablets	Regulation of period in case of DUB	
Xylocane Jelly	5 tubes	Local Anaesthesia for pelvic examination	
Cyclopam Tablets	100 tablets	For abdomen pain	

Health Education:

Counselling and educating the Basti population on maternity and child health is very important. In this regard some of the issues that are identified for the training of the outreach health volunteers are as follows:

- ✓ Early Diagnosis of pregnancy
- ✓ Knowledge on MTP
- ✓ Importance of regular investigation and check ups (antenatal period)
- ✓ Nutrition for pregnant women
- ✓ Complications related to pregnancy and advice
- ✓ Importance of institutional delivery
- ✓ Mother's care during post natal period
- ✓ Neo natal and natal care
- ✓ Child immunization
- ✓ Breast and supplementary feeding
- ✓ Post delivery complication and prevention
- ✓ Perpurium
- ✓ Spacing

Exit interview with the patients visiting Gynae OPD

10 female patients those visited the Gynaecologist were interviewed to find out their level of satisfaction and their further expectation. Most of them reported visiting the Gynae OPD for the first time. Few reported of visiting Safdurjung hospital, private clinics outside the Basti and one woman visited Dr. Hasan inside the Basti for seeking Gynaecology treatment. On ailments all the women reported of having common ailments

like abdominal pain, delayed period, excessive bleeding during menstruation, white discharge, engrossed breast, etc. however 3 women visited the clinic for treatment of infertility. All of them were examined and provide treatment by the Gynaecologist. Two of the patient complaining of white discharge and excessive bleeding were asked to follow up after 1 week. Out of the 10 patient 3 were referred to higher centre and for further treatment and investigation. All of them were cases of infertility. All of them reported to be satisfied on the services provided in terms of treatment and medicines. The overall rating was 3.4 out of 5. From the interviews it was felt that the patients desire for more services like ultra sound, X- ray, semen test, provision for MTP at the Polyclinic.

6.5 Pathology Laboratory

The established laboratory is equipped to conduct 21 types of tests as mentioned below:

- | | |
|---|-------------------------------|
| 1. Complete Blood Count (CBC) | 11. Urea (blood) |
| 2. Erythrocyte Sedimentation Rate (ESR) | 12. Serum Creatinine (blood) |
| 3. Platelet Count | 13. Bilirubin |
| 4. Malaria parasites | 14. SGOT |
| 5. Blood grouping | 15. SGPT |
| 6. Widal | 16. Gram stain smears |
| 7. Urine (routine) | 17. AFB smears |
| 8. Stool (routine) | 18. Rheumatoid arthritis (RA) |
| 9. Blood sugar | 19. Uric acid |
| 10. Blood Cholesterol | 20. VDRL |
| | 21. Dengue |

A total of 2540 types of tests conducted on 1035 patients since 4th August, 2008 till 31st December, 2008. The details of the tests that are conducted till 31st December 2008 is as shown below:

Name of the Tests	Number of Tests Conducted	Remarks
Haemoglobin (HB)	266	
Total Leucocytes Count (TLC)	247	
Differential Leukocytes Count (DLC)	247	
Erythrocyte Sedimentation Rate (ESR)	238	
Platelet Count	28	
Blood group	45	
Malaria	177	Detected 10 positive cases
Widal	60	Detected 8 positive cases
Absolute Eosinophil Count (AEC)	3	Detected 1 positive cases

Name of the Tests	Number of Tests Conducted	Remarks
Blood Sugar	641	Detected 80 % elevated value
Blood Urea	69	
Serum Creatinine	69	
Serum Uric Acid	66	
Blood Cholesterol	54	
S. Billirubin	35	
SGOT	36	
SGPT	36	
Rheumatoid Factor (RA Factor)	30	Detected 2 positive cases
Pregnancy Test	36	
VDRL	3	
Dengue	2	
Urine	141	
Stool	10	
Pap Smear	1	

Perceive Needs:

Human Resource:

According to the pathologist Dr. Meena Metre the patient inflow during the month of November and December was low due to winter and celebration. The patient inflow increases during the monsoon and would increase during the summer. Thus from March till September the number of cases would increase.

The increase in case loads in the coming months will be tasking on the presently posted laboratory technician. The people gradually know about the facility of pathology laboratory and this will also add to the increase in case load. There is a need for technically qualified assistant laboratory technician.

Infrastructure: the load shedding at the Polyclinic often hinders the work at the pathology. The long hour load shedding not only spoils the samples collected and reagents but also sometimes unable to provide results as the machines suddenly stops. Arrangement of an Inverter may be made for the pathology laboratory.

KITs:

Looking at the high diabetic population visiting the polyclinic it was felt that arrangement for Glyco Hb tests may be done. The current diabetic test provides estimate on one time value. The Glyco Hb test provides an average for 3 months, which is very useful for the doctors to treat diabetes. This test is also useful for pregnant women. Earlier for Liver functioning test only bilirubin, SGPT and SGOT were conducted. However the addition of 3 more kits like protein, albumin and alkaline phosphates will help in completing the

LFT. Protein level is useful for malnutrition / anaemia and alkaline phosphate is useful for jaundice differential. The kits may be procured to conduct the tests.

A need was felt for semen tests looking at the morbidity profile of the patients visiting the gynaecologist. According the pathologist visiting the MCD polyclinic the Semen test can be done and for this semen diluting fluid is required.

Referrals:

The pathology laboratory is not equipped to conduct blood thyroid tests. This arrangement at the laboratory will be cost intensive. However the laboratory can collect the samples form the patient and referral linkages may be established with laboratory like Immunodiagnostic Lab, Sarita Vihar, New Delhi. The tests conducted here are highly subsidised and AKDN may look for a linkage with this laboratory.

Exit interview with the patients visiting pathology laboratory

A total of 25 patients (16 females and 9 males) interviewed in order to gauge the level of satisfaction on the pathology laboratory. Except one child of 11 years all others were adults and 13 of them were 40 years and above. The patients reported having different types of ailments however more number of patients complain of diabetes and blood pressure. Of all the patients visited only 2 patients were referred to higher centres for ultrasound and one to the dentist. 80 % of the patient reported satisfied on the pathology laboratory. The dissatisfaction was reported more on the ineffectiveness of the medicines rather than on the laboratory. The perceive rating on the pathology laboratory was very high as 6 of the patient reported very satisfied and 16 of the patients reported satisfied. It was observed that before the establishment of the pathology laboratory at the polyclinic about 4 patient reported doing the tests at Dr. Salim Nizami's clinic (Registered Medical Practitioner), majority about 13 patients never gone outside for doing the tests and among others different types of private and government facilities were visited to conduct the tests, those are located outside of the Basti. The patient suggested that a child specialist and dentist should visit the polyclinic. There was also a demand for establishing a MCW centre for ANC and delivery; the facility for ultrasound and X – ray should be provided.

7.0 Civic Amenities and other infrastructures

Particulars	Current Facility	Requirement
Drinking water	There is adequate supply of water through the government distribution system, and an overhead water storage system is placed at the Polyclinic. A RO system is present in the polyclinic for providing filtered water.	Due to lack of pressure a motor pump is required to pump the water to the over head storage tank. Therefore a 1 HP water pump is required for the polyclinic. A RO system is installed but due to lack of maintenance is was in a depleted state. The filters

Particulars	Current Facility	Requirement
		and membrane was not changed since its installation. Steps should be taken to appoint a contractor for annual maintenance.
Electricity	The electricity department has installed a pre paid electric meter at the polyclinic. Continuous power supply was hampered when the pre paid amount is exhausted.	A post paid meter is required at the polyclinic to ensure continuous power supply. A generator is required for the polyclinic. In the absence of generator an inverter is required at least for the pathology laboratory.
Toilets	Toilets are available for patients and staff.	
Waste Disposal	An agency has been given responsibility to collect the wastes from the polyclinic by MCD.	For effective disposal waste one cart is required at the MCD Polyclinic.
Guard Room	No guard room or shelter house is there.	A guard / shelter house for the guard should be made outside to ensure security of the Polyclinic.
Garage	There was no parking place for the doctors at the polyclinic.	Sheds should be prepared at least having space for parking 3 cars.
Approach Road	There is no direct approach road to the polyclinic from the main road.	An approach road required and MCD may be requested to ensure.
Landscaping	No green area.	AKDN planned to develop green area by landscaping the outer space of the MCD polyclinic.
Gates	There are two gates at the polyclinic. When the gates are opened during OPD hours, often cattle and other live stocks enter the Polyclinic premises.	A small Zig Zag gate may be built besides the main gate in order to bar the animals entering to the premise.

8.0 Patient Record and Monitoring System

The MCD polyclinic is the first referral unit for most of the people living in Nizamuddin Basti. The treating doctors maintain patient morbidity record manually in registers. It is submitted on prescribed formats to the MCD every month.

The establishment and functioning of the pathology laboratory had not only increased the number of patients, but has also resulted in enhancing the quality of treatment, as the tests can be done in the polyclinic itself.

A user-friendly patient record and monitoring system needs to be established at the polyclinic. Such a system would facilitate tracking of morbidity profile, treatment, referrals and follow-up. From the morbidity profile of the patients visiting the polyclinic, it was found that some patients required referral; these patients need to be followed-up to ensure compliance for complete treatment. In addition to referrals, patients with chronic diseases such as diabetes, hypertension and communicable diseases require follow-up at household level; household contact is also required to disseminate information and advice for required treatment. Further, some patients visiting the gynecologist also required referral and continuous follow up. Therefore, it is felt that a patient monitoring system needs to be developed for the MCD polyclinic for the patients. The patient monitoring will be a process to identify the referral cases, and follow them up to ensure complete treatment and dissemination of knowledge on prevention of diseases

Trained computer staff would have to be placed at the polyclinic to manage and maintain the system. Support in terms of computer and computer peripherals would be required for this purpose.

9.0 Outreach Services

Health is dependent upon many factors. Good health can be ensured to community by promotion and preventive measures. It has been observed that the women and children are more vulnerable to health problems. Community outreach team who belong to Basti needs to be trained as health volunteers especially on Maternal and Child health and other communicable and prevalent diseases in the Basti to ensure quality health to the Basti Community. Community Outreach Team needs to be placed in Polyclinic who can counsel the visiting patients of Basti for preventive measures. In addition to promoting health, these workers would engage in motivating people to utilize the services at the polyclinic and track the referred patients.

Conclusion and Observations:

Problem	AKDN Support	MCD Support
Human Resources		
General Duty Medical Officer: Long absence of GDMO is a hindrance for		Provide two more GDMOs one for the long absent GDMO and the other

Problem	AKDN Support	MCD Support
the smooth functioning of the Polyclinic.		looking at the increasing patient inflow
EYE Specialist: After up-gradation there was 34 % increase in the patient load at the MCD polyclinic on Eye OPD		Increase the visit of the eye specialist by 2 days in a week.
ENT Specialist: There was 21 % increase in the patient load at the MCD polyclinic on ENT OPD		Increase the visit of the ENT specialist by 2 days in a week.
Paediatrician: the polyclinic is mostly visited by woman and children. The gynae services now looking after the problems related to women and adolescent girls. No specialist for children		Provide one paediatrician at least visit once a week.
Lab Technician: The MCD has sanctioned one post for an assistant lab technician which is not filled yet.		Looking at the patient load on pathological lab MCD should provide for a senior lab technician in place of assistant lab technician immediately
Watchman: There are three sanctioned post of chowkidar. In reality only one chowkidar is giving his services and other is on prolonged leave.		The Polyclinic is full of with costly and important utility equipments related to pathology lab, ENT and Eye. For the security of the polyclinic round the clock security is required therefore four chowkidars are required.
Equipments		
Eye		
Treatment of Glaucoma: All the Glaucoma cases are referred to higher centres. According to Eye specialist if an Aplanation Tonometer is fitted with the exiting Slit Lamp about 60 % of the Glaucoma cases can be	Provision for Aplanation Tonometer.	

Problem	AKDN Support	MCD Support
<p>treated at the MCD Polyclinic.</p>		
<p>Treatment of Retinopathy: Retinopathy is a general term that refers to some form of non-inflammatory damage to the retina of the eye. An Indirect Ophthalmoscope will help in diagnosis of different types of Retinopathies</p>	<p>Provision for Indirect Ophthalmoscope</p>	
<p>Gynaecologist Services</p>		
<p>Referrals: Referrals for ultrasound, HSG, Blood investigations like FSH, LH and prolactin, and T3 and T4 blood thyroid test is required. Along with this urine culture and Semen test are also required.</p>	<p>Institutional linkages may be established for conducting these tests at a subsidised cost.</p> <p>Semen diluting fluid may be provided to the existing pathologist to conduct the semen test.</p>	
<p>Pathology Laboratory: Looking at the high diabetic population visiting the polyclinic it was felt that arrangement for Glyco Hb tests may be done.</p> <p>The addition of 3 more kits like protein, albumin and alkaline phosphates will help in completing the LFT.</p>		

Annexure 1

ENT Equipments

Sl. No.	Equipments	Quantity
1	Fibre optic Head Light Basco with light source and cable	1
2	Insufflations Bulb for Beta 200 Otoscope head	1
3	Suction machine, Continental	1
4	Silicon tubing for suction	2
5	Nasal suction canula (steel), No- 1,2,3,4	1
6	Micro suction tips & connectors No. 14, 16, 18, 20. 4 connectors and 1 tip make a set	1
7	ENT Microscope & continuous Zoom, (Tagaki Japan)	1
8	EN 100 Wall transformer, single handle with one otoscope and ophthalmoscope head- Beta 200, Heine, Germany	1

Eye Equipments

Sl. No.	Equipments	Quantity
1	Vision testing charts	2
2	Illuminated optotypes (vision testing drum)	1
3	Trial lens sets and trial frame Wooden box and metal frame	2
4	Pin-hole	1
5	Pen Light, Heine Germany	1
6	Slit lamp microscope with applanation (Appasamy)	1
7	Auto-refractometer, Righton, japan, model Speedy 1, with motorised table	1
8	Syringing Set (Syringe and set of 5canula)	1
9	Eye Wash Canula (Glass Sringe and canula)	1
	Stabiliser (2 KVA) Automatic Blue Bird	1
	Lensometer (Continental)	1
	Color Vision Book (Continental)	1
	Near Vision Drum (Continental)	1

Pathology Laboratory Equipments

Sl. No.	Equipments	Quantity
1.	Semi Automatic Auto Analyser, Trans Asia Erba chem. 5x. Will offer free kits worth Rs.5000 & 2 auto pipettes	1

2.	Microscope Olympus, Binocular, CH 20 I Manufactured by Olympus India under licence of Olympus Japan	1
3.	Centrifuge Remi 6 Tube	1
4.	Haemocytometer Bright line, German with RBC and WBC Pipette and box	1
5.	Glucometer, Contour TS, Bayer, Includes Pricker, Needles and 5 strips.	1
6.	Strips for Contour TS pk of 25's	1
7.	Autoclave, Life Brand 12x14, Single Drum	1
8.	Dressing Drums 9x11, SS, Joint less	1
9.	Laboratory Oven, Memmert Type, SS Inside, 14"x14"x14"	1
10.	Laboratory Incubator, Memmert Type, SS Inside, 14"x14"x14"	1
11.	Spirit Lamp (Hospito)	1
12.	Slider Tray (Continental)	2
13.	DLC Counter (Modtek)	1
14.	Hot Plate	1
15.	Water bath Inside SS (Continental)	1
16.	Apron (local)	2
17.	Table for slit lamp (Skytech)	1
18.	Collection vials EDTA (Vacutainers) BD, USA	500
19.	Floride (Vacutainers) BD, USA	500
20.	UPS for semi-automatic analyser(on line)	1