



Optimization of the standard radiography technique for people with reduced mobility at the Central Hospital and the Exact Biology Imaging and Analysis Center in Yaoundé, Cameroon

Authors : Mbo Amvene J.¹, Omballa G. A.², Nko'o Amvene S.³, Abogo S.⁴, Hamadou Ba⁵.

1.& 2. Department of Biomedical Sciences, Faculty of sciences, University of Ngaoundéré

3. Department of radiology, radiotherapy and medical imaging, FMSB, UY I.

4.Exact Biology Imaging and Analysis Center, Yaoundé

5. Faculty of medicine and biomedical sciences, Garoua, University of Ngaoundéré

Abstract

Introduction : People with reduced mobility (PMR) are very often called upon to do radiographic examinations and whose hard work is commonly accepted by radiology and medical imaging technicians. The authors report their experience in the practice of standard radiography in PMK to optimize their practice. People with reduced mobility (PMR) are very often called upon to do radiographic exams and the hardness of realization is commonly accepted by radiology and medical imaging technicians. The authors report their experience in the practice of standard radiography in PMK to optimize their practice.

Matériel et méthodes : The study took place in Yaoundé at the Central Hospital and Exact Imaging and Biological Analysis Center. Using the pre-established questionnaire, the descriptive transversal method allowed us to evaluate standard radiography practices and the attitude of technicians in these hospitals in Yaoundé (Cameroon) when taking care of PRMs.

Résultats : Technologists with age groups between 20 and 29 years were more represented with a male predominance (53.7%). Among them, 9 (60%) had a seniority of 1 to 2 years. However, 67.7% had no training in PMR management. The patients consisted of 57.34% of men against 42.76% of women with the age group greater than 60 years. The majority of patients were satisfied with reception (98.20%). 79.09% did not wait long to be cared for. Access to the examination room was effective in 41.20% of cases, due to the presence of obstacles (stairs).

Conclusion : A good optimization of the standard radiography technique in PRMs, on the one hand, through the knowledge of the different types of PMR in our environment, namely among others, the disabled, the elderly, traumatized and accompanied babies . On the other hand, the construction of health facilities, including private and public radiology and medical imaging services, must take into account accessibility for PRMs.

Keys-Word : Standard Radiography, Person with reduced mobility, Yaoundé (Cameroon)

Introduction

Radiology in the medical field, refers to all diagnostic and therapeutic modalities using X-rays, ionizing radiation. In medicine, conventional radiology refers to diagnostic tests using a conventional X-ray tube used to make two-dimensional images. This includes standard radiography, which covers simple, accessible radiographic examinations, and allows many diagnoses to be made, the execution of which is governed by internationally recognized protocols.

In the West, specifically in France, radiological examinations are governed by a guide that regulates and ensures the optimal performance of examinations (Guide to the correct use of imaging exams, 2005). The technical platform that generally follows the technological advances as well as the staff are important. Some developing African countries like Senegal and Ghana have a considerable lead over others in health infrastructure. In Yaoundé, Cameroon, standard radiography practices are late to date. There are still problems with this medical imaging technique: uncontrolled installations, non-compliance with radiological protection standards, and the practice of the specialty by incompetent people (**Gonsu, 2007**).

X-ray is one of the most requested exams in a health facility, so the radiology department will be the place where many patients, including people with reduced mobility, will go.

Reduced mobility is a situation of disability for a person due to a decrease in the ability to move in the public space, temporarily or permanently. It can be linked in particular to prenatal deficiencies or due to diseases, accidents, aging or even specific situations (Brussels Mobility Report, 2015). This has the consequence of limiting or lack of autonomy of movement in an environment. For the disabled, most public and private services, public transport, leisure and housing will become inaccessible to them.

The improvement of these living conditions is the object of action by organizations and associations in the direction of public authorities and managers of places accessible to the public (restaurants, cafés, cinemas, tourist sites, etc.), to improve the accessibility and layout of living spaces (provision of wheelchairs, places reserved for the disabled in public transport, stair-climbing, toilets, inclined planes ...).

In the field of health, health facilities do not always have an architecture facilitating their movement, the devices are not suitable (stretchers, stretchers, wheelchairs ...). Imaging is no exception because the good positioning of the patient, the handling of the device contribute to the realization of good quality images and the reduction of the number of misfires even to an optimization of the irradiation.

In standard radiography, people with disabilities (motor, visual and auditory), traumatized persons, children and the elderly are considered persons with reduced mobility (PMR) (Heyman, 2011).

Very few studies are interested in this situation in the world yet, the percentage of PRM is not negligible. This is the case of a research conducted by Decaudin (2012) in Belgium on the management of a person with reduced mobility who demonstrated that medical imaging professionals are in demand of new techniques for a better grip. in charge of people with reduced mobility and the acquisition of specific equipment including: the transfer board and the sliding sheet. However, is the material sufficient for good PMR management? Finding appropriate disability-based techniques in front of us would be wise. In France, work on this subject highlights the difficulties encountered by the manipulators (difficulties in transporting patients, difficulties in carrying out the examination and the lack of appropriate equipment). These require adaptation to each patient. It is important to note that for any type of patient, a radiological examination will depend on its morphotype as well as its general condition (Esteve and Gaborit, 2012). The manipulator must therefore make sure to perform quality exams while taking into consideration the comfort of the patient whether he is reduced mobility or not.

In Africa in particular and specifically in Cameroon, A survey conducted in 2014 at Douala General Hospital by Moifo et al. on patient satisfaction in the radiology department showed that two thirds of patients were satisfied. However, the main reason for dissatisfaction was the long waiting time.

In addition, a study conducted in the city of Yaoundé (Cameroon) by Gonsu et al. in 2014 (HGY, CHUY, HGOPY, HCY, HGY) on the educational needs of radiology technical staff in the care of the elderly showed that staff needed to be trained on this segment of the population and its specificities to ensure better care.

The study raises the problem of the care of people with reduced mobility in the radiology and medical imaging departments in our area in order to optimize the practices of these PRMs. specifically,

- ✓ Identify the types of reduced mobility encountered in the study area;
- ✓ Describe the environment in which standard radiography is performed in persons with reduced mobility in our study environment;
- ✓ compare these techniques with those made elsewhere (France, Belgium ...);
- ✓ propose ways to optimize the management of this category of patients.

II Matériel et Méthods

1. Matériel

Were essential for data collection:

- The pre-established fact sheets ;
- The patient's examination bulletin;
- Ballpoint pens, pencils, USB sticks, laptops; a camera.

For data management:

- Microsoft Office Word 2007 for data entry;
- Sphinx software version 5.1.0.6, Microsoft Office Excel 2013. And to analyze data, generate tables and graphs, and establish associations.

2. Méthods

Each patient received in the Medical Imaging department underwent a clinical examination, after which the requested X-ray was performed. The clinical examination was performed by the examination applicant, the technician or the radiologist.

We proceeded to the reception, the recording of the patients, an explanation of the procedures of realization of the radiography and the objectives of our study, then to an anamnesis: identification, personal antecedents and family of the handicap. The examinations consisted of one or more main effects depending on the type of examination: face, profile and three-quarters. The radiologist on duty interpreted each image. At the HCY for patients coming from the emergency room (BU), X-rays were given to the patient or his escorts directly without interpretation.

3. X-ray equipment

The "CIAB Exact" was equipped with a "Proteus XR / a" brand radio device from General Medical Electrical Systems, a scanning system comparing a "Profectcs" brand digitizer to "FUJIFILM" as well as a printer " DRYSTAR "of" AGFA ". We used FUJIFILM brand digital tapes of 24x30 and 35x43 formats. As for the HCY, it has two radiography rooms, one of which contains a "SIEMENS" brand and the other a "TOSHIBA" branded device. It is also equipped with an automatic processor. The cassettes used were of different existing formats but the majority were used the formats 24x30, 35x35, 35x43.

4. Typ and period of study

This was a descriptive cross-sectional study. The study was conducted over a period of four (04) months from June 1 to September 30, 2016.

5. Framework of study

Our study was conducted simultaneously at the Central Hospital of Yaoundé located in the Mfoundi department, precisely at the Henry DUNNANT avenue and at the "CIAB Exact" also located in the same city precisely in the "Nfandena" district at Avenue Marc Vivien FOE. These two structures are reference hospitals in the city of Yaoundé that receive patients from various backgrounds. However, our study took place in the Radiology and Imaging Services of these hospitals.

6. Population studied

This was a non-probability sampling, Medical Imaging staff and RMCs were recruited progressively since the date of data collection in the radiology departments of the hospital structures mentioned above.

- Included criteria

Included in our study, all patients with reduced mobility received in the Department of Radiology and Imaging for X-ray.

- Sample size

The sample consisted of 58 participants, fifteen (15) technicians from the Radiology Department of the HCY and the "CIAB Exact" of Yaoundé had wanted to participate in the study. Next, there were forty-three (43) mobility-impaired patients who had attended the imaging service for an examination.

- Ethical considerations

In order to respect the ethics of medical research, an administrative procedure was undertaken to obtain an ethical Clearance from the University of NGAoundéré, the Ethics Committee and finally the authorizations of the Director HCY and the direction of CIAB EXACT. Data was collected with respect for medical confidentiality and anonymity through the use of patient codes and technicians who had agreed to participate in our survey. The oral and written consent of the patients were elements of rigor for our study.

III. Results

Table I: Répartition des techniciens selon le genre, l'âge et l'ancienneté

VARIABLE	EFFECTIVE	FREQUENCES (%)
Kind	*M	8 53,3
	* F	7 46,7
	TOTAL	15 100
Ages (year)	20-29	14 93
	30-39	1 7
	40-49	0 0
	50-59	0 0
	> 60	0 0
	TOTAL	15 100
Seniority (year)	< 1	4 26,7
	1-2	9 60
	2-3	2 13,3
	3-4	0 0
	>5	0 0
	TOTAL	15 100

*M : male ; *F : female

The analysis in Table I shows that in terms of gender, male technicians were more represented (53.3%) than women (46.7%). Regarding the age of participating technicians, the 20-29 age group was the most represented (93%). In terms of seniority, technicians with 1-2 years of practice were more numerous (60%).

The observation in Figure 2 shows that the average monthly examinations among PMKs was between 10 and 12 with a 47% representation (Figure 1).

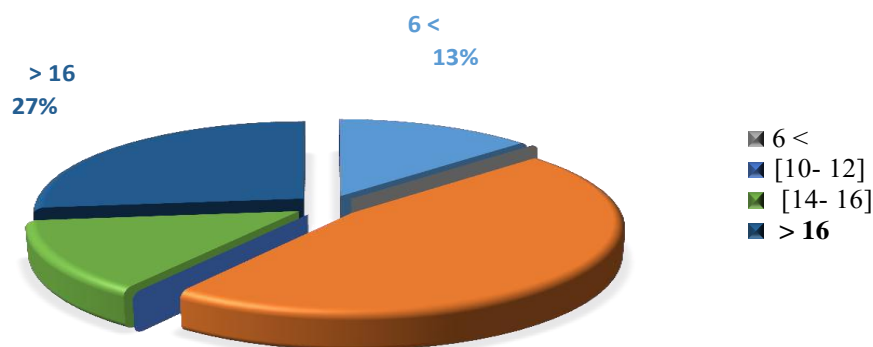


Figure 1: Average of exams per month

Tableau II: Distribution of technicians according to the participation or not in a training

Variable	Responses	Effective	Fréquences(%)
Training in PMR*	YES	5	33,3
	NO	10	66,7
	TOTAL	15	100
Desire to be trained on PMR	YES	11	100
	NO	0	0
	TOTAL	11	100
Different approach	OUI	8	53,3
	NON	7	46,7
	TOTAL	15	100

***PMR : someone with reduced mobility**

10 technicians did not have training in the management of PRMs or 66.7% while 5 had been trained or 33.3%. It revealed that 100% of the respondents had been trained on RMCs in their curriculum. Regarding the desire to be trained, 11 technicians (100%) felt they wanted to be trained on the PRC of PRM. 10 technicians did not have training in the management of PRMs or 66.7% while 5 had been trained or 33.3%. It revealed that 100% of the respondents had been trained on RMCs in their curriculum. Regarding the desire to be trained, 11 technicians (100%) felt they wanted to be trained on the PRC of PRM.

Tableau III: Difficulties of PEC of PMR*

Variable	Response	Effective	Fréquences(%)
Physical plan	YES	15	100
	NO	0	0
	TOTAL	15	100
Psychological plan	YES	14	93,3
	NO	1	6,7
	TOTAL	15	100

***PMR : someone with reduced mobility**

All respondents stated that they had difficulty in physically managing the PMRs (100%). All respondents stated that they had difficulty in physically managing the PMRs (100%). Regarding the psychological management, it was also complicated for technicians (93.3%) against 6.7% found it easy to take care of these patients psychologically.

Figure 3 indicates that the main obstacle for the physical PEC of PRMs was mainly the difficulty of achieving certain impacts (50%) followed by the need for handling (42.3%). In addition, 7.7% of the respondents put forward other reasons for this difficulty. Figure 3 states that the main obstacle for the physical PEC of RMCs was mainly the difficulty of achieving certain impacts (50%) followed by the need to handling (42.3%). In addition, 7.7% of respondents put forward other reasons for this difficulty.

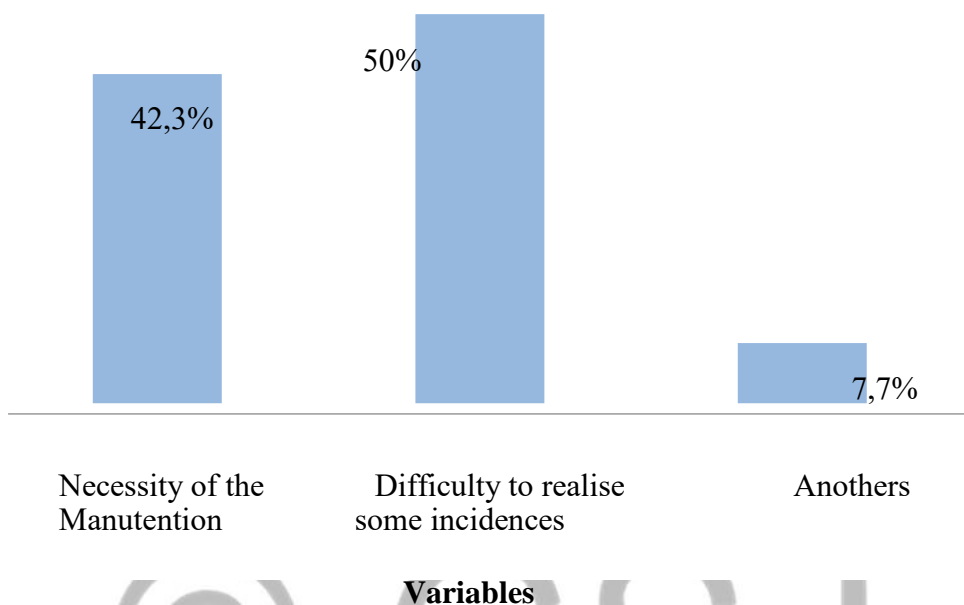


Figure 2: Reasons for the difficulty of physical management of PMR

figure 4 shows that 47.8% of technicians found it difficult to communicate with PRMs, while 39.1% found it uncooperative.

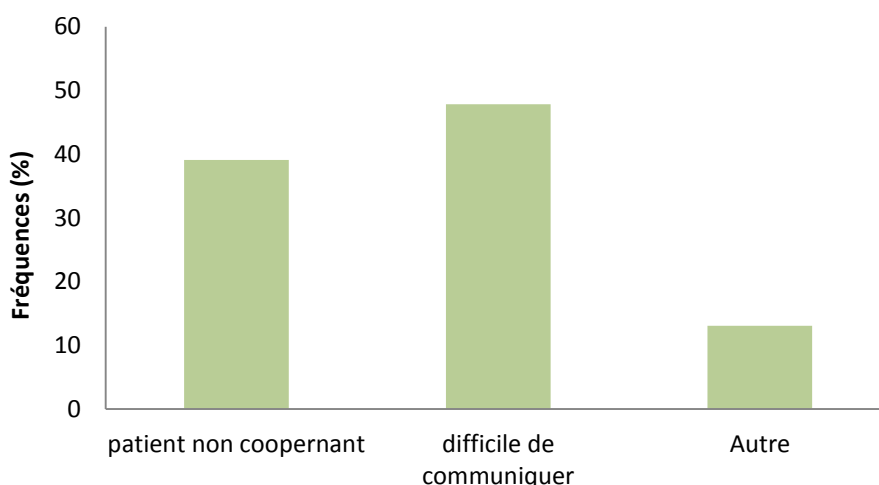


Figure 3: Reasons for the difficulty of Psychological Management of PMR

Tableau IV: Adapting services to support * PMR

Variable (%)	Responses	Effective	Frequence
Adapted Services	YES	5	33,3
	NO	10	66,7
	TOTAL	15	100
Modality Of adaptation	difficult room access	6	50
	Inadequat manutention material	6	50
	TOTAL	12	100
Adapted Material	YES	1	6,7
	NO	14	93,3
	TOTAL	15	100

***PMR : someone with reduced mobility**

10 (66.7%) of the technicians thought that their service was not suitable for the care of the PMK against 5 (33.3%) who thought the contrary

Tableau V: Distribution of * PRMs by age according to technicians

Age intervals (year)	Effective	Frequencies (%)
[0-9]	0	0
[10-19]	0	0
[20-29]	0	0
[30-39]	3	20
[40-49]	1	6,7
[50-59]	3	2
> 59	8	53,7
TOTAL	15	100

***PMR : someone with reduced mobility**

Interviewees indicated that the average age of PRMs in the imaging department was > 59 years (53.7%) while 20% of patients were in the range [50-59] (Table V)

Figure 5 shows that 87% of x-rays that were performed were disability-related. In contrast, 13% were not.

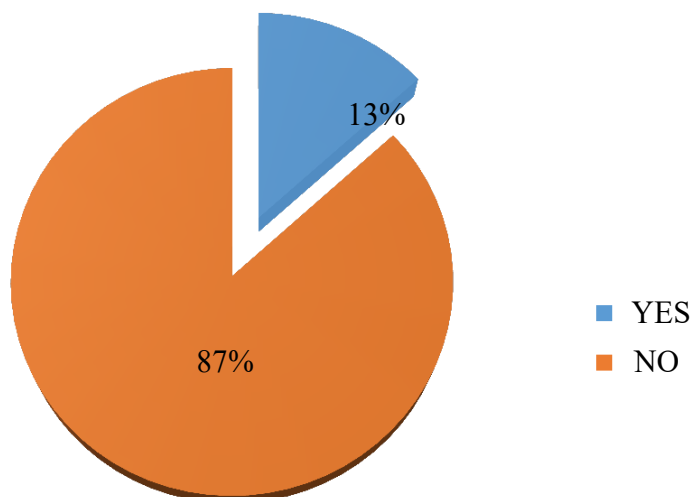


Figure 4: Distribution of radiographies related to disability

Tableau VI: Breakdown of technicians by variables

VARIABLES	Responses	Effective	Frequence (%)
Emotions	Hapy	5	33,3
	Angry	0	0
	indifferent	7	46,7
	Anoyher	3	20
	TOTAL	15	100
	YES	6	40
	NO	9	60
	TOTAL	15	100

In the face of PMR, 33.3% of technicians were happy to take care of them while 46.7% were indifferent.

Concerning manipulations or maneuvers specific to PRMs, 40% of the interviewees admitted to know some of them and used them, but 60% had no knowledge of maneuvers dedicated to PRMs (Table VI).

In Figure 6, 80% of technicians surveyed said it was important to know the disability of the patient while 20% said the opposite.

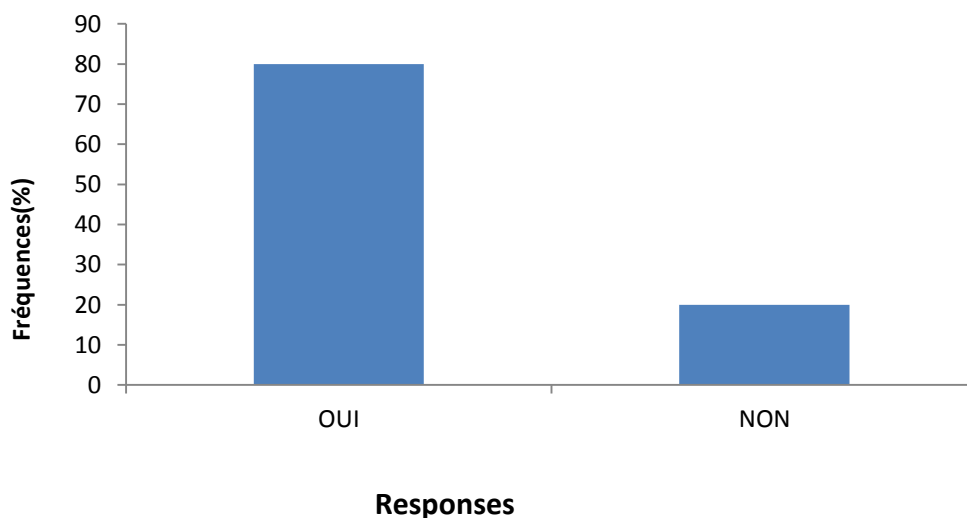


Figure 5: Distribution of patients according to the importance of knowledge of disability

Tableau VII: Representation of the types of PMR encountered

Type of reduce	Variables	Effective	fréquences (en %)
Mobility	The elderly disabled	3	6,98
	Simple (elder)	20	46,5
Disabled	motor	5	11,6
	auditory	1	2,3
	visual	1	2,3
Accompanied children (Newborn)	traumatized	1	2,3
	simple	3	6,98
Traumatized (Adults)		9	20,94
TOTAL		43	100

Table VII shows that : for the elderly, 3 had a fair handicap of 6.98% and patients with reduced mobility due to aging were the most represented (46.5%). Regarding the disabled, we find that the motor impaired were the most represented (11.6%) while the visually impaired and auditory were poorly represented with 2.3% respectively. For accompanied children (babies), the table reveals that those who did not have a trauma were more represented (6.98%) while children with trauma were poorly represented. For adult traumatized patients, the table shows that they were also represented (20.94%).

In figure 7, we note that the main reason for knowledge of disability was to avoid resuming the incidence (45%). The second reason put forward was the speed in the completion of the exam (35%). In addition, 13% mentioned other reasons.

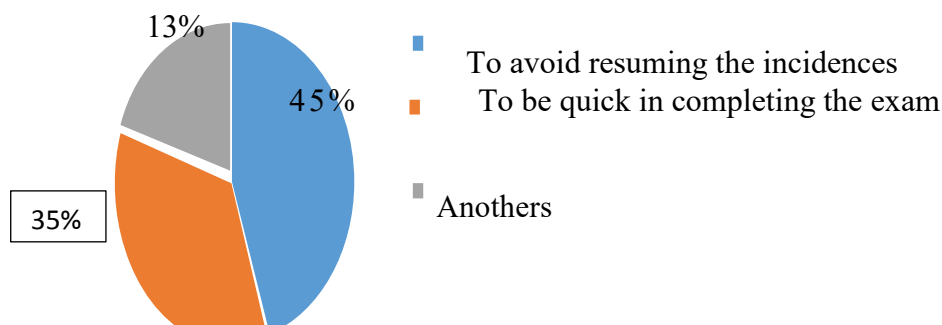


Figure 6: Reasons for knowing the origin of PRMs

Tableau VIII: Sociodemographic distribution of patients

VARIABLES	EFFECTIVE	FREQUENCES (%)
Gender	*M	23 57,30
	* F	20 42,70
	TOTAL	43 100
Ages (year)	[0-9]	7 16,30
	[10-19]	0 0
	[20-29]	0 0
	[30-39]	4 9,30
	[40-49]	7 16,30
	[50-59]	2 4,60
	>60	23 53,50
	TOTAL	43 100%

*M : male,*F : female

Of the 43 patients selected for the study, there is a predominance of the male gender with 57.30% against 42.70% female (Table VIII).

In addition, the age group most represented in PRMs was > 60 years (53.50%) followed by the age group 0 to 9 years and 40 to 49 years (16.30%).

Tableau IX: Patient distribution by X-ray history

Variables	Responses	Effective	Frequencies(%)
ATCD of X-ray	YES	27	63,90
	NO	16	36,10
	TOTAL	43	100
Parts organism	Head	0	0
	Shine	7	25,92
	Lungs	5	18,52
	Abdomen	2	7,4
	Culumn	5	18,52
	Lower limbs	5	11,82
	Upper limbs	3	11,12
	TOTAL	27	100

63.90% of the surveyed patients had x-rays in the past versus 36.10% who had never been in an X-ray room for an examination.

In the proportion of those who had already done an examination, it appears that 25.92% had done the x-ray of the back. In addition, radiographs of the pelvis, those of the lower limbs as well as those of the lungs were performed in the same proportions (18.12%) (Table IX).

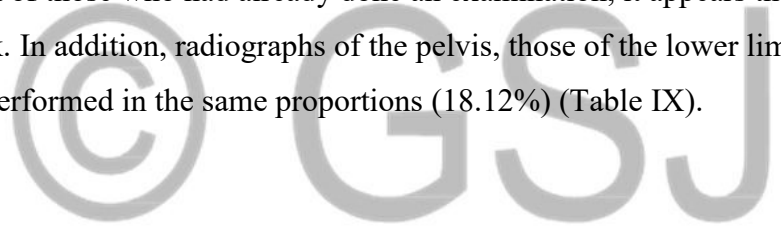


Tableau X: Distribution of patients by reception in the service

VARIABLES		EFFECTIVE	FREQUENCES (%)
Good Home	YES	42	98,30
	NO	1	1,70
	TOTAL	43	100
Well being and manipulator	OUI	41	96,7
	NON	2	3,30
	TOTAL	43	100
Adapted Material	YES	31	72,10
	NO	12	27,90
	TOTAL	43	100
Reasons related to equipment	painful	5	41,66
	Inconfort	5	41,66
	autres	2	16,67
	TOTAL	12	100
Others	OUI	19	41,2
	NON	24	55,8
	TOTAL	43	100
Local problem	Stairs	24	100
	Narrow premises	0	0
	Aeration problem	0	0
	autres	0	0
	TOTAL	24	100

Table X shows that 98.30% of patients were satisfied with reception versus 1.70%.

A large majority of the interviewees felt comfortable with the manipulator (96.70%) while 3.30% were not. This table also shows that 72.10% had found the material in the radiography room adapted to their disability, but some had found it unsuitable (27.90%). The reasons for this maladjustment were as follows: 25% found the material uncomfortable, 41.66% found it painful and 16.67% were uncomfortable. Regarding access to the room, 55.8% of respondents found it difficult to access it compared to 41.2% who found the easy access examination room (Table X). felt comfortable with the manipulator (96.70%) while 3.30% were not. This table also shows that 72.10% had found the material in the radiography room adapted to their disability, but some had found it

unsuitable (27.90%). The reasons for this maladjustment were as follows: 25% found the material uncomfortable, 41.66% found it painful and 16.67% were uncomfortable. Regarding access to the room, 55.8% of respondents found it difficult to access, compared to 41.2% who found the easy access examination room (Table X).

Tableau XI : Means of optimization

Involved techniques	Newborns		Anothers types of PMR	
	Effective	Fréquences(%)	Effectifs	Fréquences(%)
Blondeau	6	40	15	100
Blondeau adapted to baby	0	0	0	0
« Frog technique »	3	20	0	0
« Le Cochon pendu »	6	40	0	0
TOTAL	15	100	15	100

The analysis in Table XI shows that in terms of dedicated techniques, none of the participants were aware of the baby-friendly Blondeau (0%). The techniques of "frog" and "hanging pig" were unknown for other types of PMR. In babies, the techniques of Blondeau and "hanging pig" were the best known (40%). Only 3 respondents (20%) recognized "the frog". For adults, all respondents (100%) knew the Blondeau technique, the others (0%).

IV. Discussion

1-Socio-demographic characteristics of technologists

1- Age and gender of technologists

The study reveals that the majority of technologists (53.3%) are male. Our results are similar to those found by Gonsu et al. (2014). Indeed, in a study conducted in hospitals Yaounde (General Hospital of Yaounde ...) these authors had found that out of 32 imaging technicians, 59% were men. However, our results were different from those in France where 56.8% were female technologists out of 44 participants (Esteve and Gaborit, 2012). These differences could be explained by the size of the sample and the location of the study.

2- Technician Grades and Seniority

Regarding the grade, it was found that out of 15 technicians surveyed 7 (46.7%) were engineers and 8 (53.3%) were medical technicians. These results corroborate those of Gonsu et al. (2014) who found a percentage of 56% among technicians in his study population. These results could be explained by the fact that technologists were more trained engineers.

Seniority was remarkable in the interval between 1 and 2 years (60%). These results are different from those of Gonsu et al. (2014), who found that 36% of 32 respondents had between 0

and 4 years of seniority. This big difference in percentages could be explained by the fact that in our study area young adults who were newly graduating from training schools and who were looking to join professionally were numerous. On the other hand, in the case of the **Gonsu et al.** Study, fixed-term, renewable 1-year contracts could explain the decline in the percentage obtained.

3- PMR Support

The study found that 66.7% of technologists had never received training in PMR management. These results could be explained by the fact that in our study environment, there was not enough awareness of the specificities of RMCs. Therefore, there was no urgency to train enough technicians on the PRC of PRMs;

It thus emerges from the study that the mobilization of the RMCs remains the main difficulty of their CEP (100%). Our result corroborates that of **Gonsu et al.** (2014) who found that 94% of respondents found it difficult to physically take RMCs. Indeed, the management of PMR is specific, the lack of training and the lack of appropriate equipment could be the cause of these difficulties in this care.

Another specificity of this PEC came from the fact that the technicians (100%) always needed a third person (a colleague, a stretcher bearer, a nurse) to carry out the exams. These results were identical to those of Gonsu et al. (2014). Indeed, the lack of suitable equipment could partly explain these difficulties.

4- Techniques dedicated to PMR

X-ray examinations in PRMs are often not easy and even have specificities. The study reveals that only 40% of the technologists surveyed had a vague idea about the techniques used to perform certain examinations in these patients. Our results are different from those of Saint Leger et al. (2009) who found in their study that 75% of electroradiology manipulators (MERs) knew techniques dedicated to PMR. This difference could be explained by the fact that the technical staff in our study area did not receive training on the PRC of the PMRs.

5- Means of optimization

If the study showed that respondents were aware of certain techniques dedicated to PMR including the technique of Blondeau and that of the "hanging pig" were known to nearly 40%. Indeed, these two techniques constitute standard incidences most commonly performed, unlike the technique of the "frog", if known (20%) but remains very little achieved.

On the other hand, none of the participants was aware of the baby-friendly technique (0%). This result could be explained by the fact that the technicians were unaware of its existence. Indeed, the babies are fearful, agitated and with a lack of cooperation during the realization of the examination. It should also be noted that this technique can visualize the maxillary sinuses but they are visible only from 3 years. The use of restraint methods is usually necessary. The baby-friendly Blondeau technique was then a variant of the standard Blondeau technique which was done in the supine position.

2-Socio-demographic characteristics of technologists

1- Ages and genders of patients

The most represented age was > 60 years with a representation of 23 (53.50%) These results could be explained by the fact that life expectancy increases and the population becomes more and more aging.

2- Types of PMR

In this study we identified 53.5% of the elderly. These results are not statistically different from those of Saint Leger et al. (2009) who found in their study (50%). Indeed, older people because of their fragility and vulnerability would be more likely to visit hospitals than other categories of patients.

The visually impaired were represented with a proportion of 2.3%. These results corroborated those of Durin and Mottaz (2012) who found in their study a percentage of 2% of RMCs with this disability. Indeed, the visually impaired appeared to be few.

Children (babies) accounted for 6.93% of our sample. These results were different from that of Agoda-Koussema et al. (2006). These differences could be explained by the size of our population, the duration and location of the study. Indeed, these authors had worked on a sample of 580 participants over a period of 12 months.

The main parts of the body that had been X-rayed were the lumbar spine (25.92%) and this mainly concerned the elderly (60 years old and over). This could be explained by the fact that old age is also a significant cause of reduced mobility.

3- Patient satisfaction

The study reveals that 98.30% of the patients surveyed had been well received. These results are similar to those found by Moifo et al. (2014) who found 80% in his survey at the HGD. In fact, reception means receiving patients well, and above all, allowing them to be more attentive about the availability of staff, the quality of the listening, the quality of the information, the helpfulness of the staff as well as as his degree of professionalism.

As for patients, the study reveals that 96.7% felt they were safer and therefore comfortable with the examination room technologist. Saint Leger et al. (2009) found in a study that 100% of patients were comfortable with the manipulator in a hospital. In fact, the technologist must show a high degree of professionalism in the care of the patient whether or not he is a PRM.

72.1% of the patients in our series compared to 30% in the series of Saint Leger et al., 2009, thought that the material in the radiography room was adapted to their disability. Indeed, patients are unaware of the existence of equipment dedicated to PMK and that in other places, especially in France, the care of PMR is already regulated and there is even already material for their PEC.

Conclusion

With the aim of optimizing standard radiography practices in the radiology departments of the Central Hospital of Yaoundé and the Exact Biological Imaging and Analysis Center in the care of PMR in our environment,

- the study revealed the different types of PRM, such as the disabled, elderly, traumatized and accompanied babies;
- Standards in radiology practice are generally respected by doctors and other technologists, although the means were limited and the radiographic techniques were different from those practiced in France or Belgium;
- it would be important to find new radiography techniques for PMKs and to provide PMR-adapted equipment to radiology departments, to reduce the percentage of impact revisions and thus reflect on new ways of doing certain exams at the same time. instar of the technique of realization of the Blondeau adapted babies in our medium.

- Lastly, when creating a private or public structure, it is essential to take into account the accessibility for the PRM in order to improve the facilities. The technicians were in need of training, materials as well as new techniques concerning the management of PMR in radiology.

Bibliography

Agoda-Koussema L., Koffi K., Adjenou K., Afansounoudji K. Amouzou K. Awobanou K., Gbadoe A., N'dakena K., 2006. Pratique de la radiographie conventionnelle au TOGO à propos de 580 cas colligés aux CHU de LOME. 12p.

Chanrion A., 2006. Une Souris Verte pour la Courte Echelle – Formation A.V.S. – 26/09/06
10 p.

Decaudin S., 2012. Prise en charge d'une personne à mobilité réduite. Travail de fin d'études en vue de l'obtention du diplôme de Bachelor-technologue en imagerie médicale. Haute école Louvain en Haunai

Durin S., Mottaz Y., 2012. Accessibilité des cabinets des médecins généralistes du Loir-et-Cher aux handicapés visuels
Doctorat en Médecine Faculté de médecine de Tours 2012. 43p

Esteve L. et Gaborit P., 2012. Prise en des personnes âgées lors d'un examen radiologique. Travail de fin d'étude. Institut de formation des manipulateurs en électroradiologie médicale CHU Grenoble.36p.

Gonsu F., Juimo A., Guegang E., Monda S., 2014. Besoins éducationnels du personnel technique de radiologie dans la prise en charge des personnes âgées [FMSB, mémoire de Master 2].

Guide du bon usage des examens d'imagerie médicale, 2005.Recommandations pour les professionnels de santé. Transposition de la directive européenne 97/43 Euratom.Société Française de Radiologie. Société Française de Biophysique et de Médecine Nucléaire.102p

HAS, 2011. Enjeu CHUx et spécificités de la prise en charge des enfants et des adolescents en établissement de santé. Pp 1-28

Hellopro, 2016. accessoires-d-equipements-pour-personnes-a-mobilite-reduite.1p.

Heyman E., 2011. « Personnes handicapées » et « personnes à mobilité réduite » quelle différences ? 1p.

Jacques D., 2013. Mobirad : La radiographie mobile pour assister une population vieillissante ou à mobilité réduite. 10p.

Laplace C., 2010. Imagerie à l'admission de polytraumatisé : recommandations. p.465-473

Lecheheb F., 2005. Cours étudiants 3 : radio pédiatrie ou imagerie pédiatrique 10p.

Loi n° 2005-102 du 11 février 2005 pour l'égalité des droits et des chances, la participation et la citoyenneté des personnes handicapées.

Moifo B.,Guengang E., Zeh O.,Thimnoue M.,Manka'a W.,Nguemgne C.,Gonsu K., Belley P., 2014.Enquête de satisfaction des patients au service de radiologie de l'Hôpital General de Douala-Cameroun.JAfrImag Med 2014 ;(6),1 :52-63

OMS, 2015. Rapport mondial sur le vieillissement et la santé. Résumé.32 p.

Ramdani Y. et Zenina H, 2010.L'intérêt de la formation continue des manipulateurs en Radiologie pour une meilleure prise en charge des patients. Mémoire professionnel de fin d'études. Ecole de formation paramédicale de Sétif.

Rapport Bruxelles mobilité, 2015.Qu'entend-on par PMR 1 p.

Rapport ENSP, 2003. L'accessibilité des personnes handicapées à l'hôpital .3p.

République du Cameroun, 2011. Enquette demographique et santé et à indicateurs multiples (EDS-MICS) 2011. 576 p.

Saint Leger J., Mailles S., Minjard L.,Tremoliere S.,2009.Prise en charge des patients handicapés moteur dans un service de Radiologie. Institut de formation de manipulateurs en électroradiologie médicale, CHU de MONTPELLIER [Mémoire de fin d'étude].44p.

Saldot E, 2013.La Radiopédiatrie : spécificités, techniques et attitudes à adopter 9p.

Sellier N., Lhoste N., Lemouchi D., Sebbane G., Seror O.,2003. Problématiques de l'imagerie en gériatrie : pertinence,objectifs et réalisation de l'examen radiologique. Téléradiologie: organisation et évaluation. Editions françaises de radiologie. Paris, 2003.

Wemer J., 2004. D'une image à l'autre ou pourquoi et comment étudier les usages et pratiques de l'imagerie médicale à Dakar (Sénégal) n° 29 p.65-80.

Webbographie

www.liege.be/mobilite/personne-a-mobilite-reduite

wwwold.chu-montpellier.fr/publication/inter_pub/R191/A4459/TIP

www.who.int/mediacentre/factsheets/fs404/fr/

www.google.cm/?gws_rd=cr,ssl&ei=Qq0ZWLaBNcP-UO
tseAD#q=rapport+mondial+sur+le+handicap

WWW.Cameroun-info.net/article/Pr-joseph-Gonsu-il-y-a-un-radiologue-pour460000-camerounais-102492.html

Portail de l'Institut de formation aux carrières de santé du Maroc.Consultable à l'URL :

www.ifcs.moontada.com

© GSJ