Analysis of Formation Needs of Expert Radiographers in Radiology Installation in RSUD Tugurejo, Central Java Province

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ABSTRACT

Background :Radiology Installation of Tugurejo Regional Hospital in Central Java Province has 5 expert radiographers divided into 1 first level radiographer, 3 young level radiographers, and 1 middle level radiographer who is a Diploma IV graduate. The purpose of this study was to determine the needs of expert radiographers in the Radiology Installation of Tugurejo Regional Hospital, Central Java Province.
Method :This type of research is descriptive quantitative research with an observation approach. The method of data collection was carried out by observation and documentation carried out in February 2019, data for 1 year from January to December 2018.
Results : The results of this study showed that the analysis of the needs of expert radiographers in the Radiology Installation of Tugurejo Regional Hospital, Central Java, namely with the number of First Radiographers 0.9858 are rounded up to 1 formation, while the number of Young Level Radiographers and the number of Middle Level Radiographers is zero.
Conclusion : the need for expert radiographers in the radiology installation at Tugurejo General Hospital is 0.9858 . We recommend that the ideal number of formations be adjusted to the results of calculations obtained based on their needs.

Keyword :Formation of Expert Radiographers; Tugurejo General Hospital; Central Java Province

Introduction

One formulation of functional positions in the field of health is the functional position of the radiographer. The functional position of a radiographer is a position within the scope of duty, authority and responsibility for providing services in the radiology field in health facilities occupied by civil servants (PNS). In the distribution of functional positions formation has several levels of rank and rank. The functional position of the radiographer is divided into skilled radiographers and expert radiographers. In functional levels, skilled radiographers consist of executive radiographers, advanced radiographers and supervisor radiographers. While at the functional level, expert radiographers are divided into the first radiographers, young radiographers and middle radiographers (PERMENPAN NO. 29 of 2013).

According to PERMENPAN NO. 29 of 2013 that the elements and sub-elements of activities of a radiographer can be assessed by credit numbers which include: education, radiology services, professional development, supporting the duties of radiographers. Based on observations, there were 10 civil servants (PNS) radiographers consisting of 5 functional radiographers and 5 functional radiographers. The radiographers work on various types of examinations starting from conventional examinations and sophisticated examinations such as CT-Scan and MSCT. According to PERMENPAN NO. 29 of 2013 CHAPTER VI Article 8 that every functional level of the radiographer has details of activities and elements assessed by granting credit numbers at functional levels of skilled radiographers divided into three parts, namely the implementing radiographer has 33 items of activity, advanced radiographers have 31 items of activity, and The supervisor radiographer has 27 items of activity. At functional levels the expert radiographer is divided into three parts, the first radiographer has 136 items of activity, the young radiographer has 128 activities, and the middle radiographer has 102 items of activity. The average number of patient visits for 1 year is around 1,537 patients. Radiology Installation of Tugurejo Regional Hospital in Central Java Province has 9 imaging modalities

consisting of 1 fluroscopic, 1 mobile unit, 1 panoramic, 2 X-ray stationary, 2 CT-Scan and 2 ultrasonography (USG).

Based on previous research, research on the analysis of the needs of skilled radiographers in the Radiology Installation of Tugurejo Hospital, Central Java Province, there were 4 skilled radiographers consisting of 1 advanced radiographer and 3 radiographers (Monic, 2018). Therefore, the writer wants to continue reviewing and analyzing the research on expert radiographers in the Radiology Installation of Tugurejo Hospital.

Methods

This research is a quantitative descriptive study with an observation approach. The location of data collection was carried out in the Radiology Installation of Tugurejo Regional Hospital, Central Java Province. The time of data collection is carried out in February 2019. The method used when collecting data is done by observation and documentation.

The results of data processing based on the formula of the PERMENKES No. 43 of 2017 is evaluated if the result of the calculation determines the number of formations having a value behind the comma of 0.50 or more, one formation can be determined. However, if the calculation result determines the number of formations has a value of less than 0.50 then it cannot be determined to be a formation

Results and Discussion

The results showed that the needs of expert radiographers in the Radiology Installation of Tugurejo Hospital, Central Java Province with the number of First Level Radiographers was 0.9858 rounded up to 1 formation, while the number of Young Level Radiographers was 0.2675, and the number of Middle Radiographers was 0.0557 cannot be specified as a formation. We recommend that the ideal number of formations be adjusted to the results of calculations obtained based on their needs. formation calculation formula :

$$Formasi\ JF = \frac{\Sigma Wpv}{1250}$$

According to the author based on the calculation of data obtained in the Radiology Installation of Tugurejo Hospital, Central Java Province for Expert Radiographers in the first level, they must be able to complete the activity granules according to table 1, from table 1 the author gets the first required formation of Expert Radiographer. Besides that, the young level also completes the item in accordance with table 2 and does not get the number of formation for the young level, while for the middle level also completes the items, as well as the young level of expert radiographers.

Table 1. Formation calculation table for first-level expert radiographers

Unsur	Sub Unsur		Butiran Kegiatan	Satuan Hasil	Keterangan	Angka Kredit	Konstanta (K)	Waktu Penyelsaian Butir Kegiatan (Wpk = Akb/Kt)	Volume Kegiatan dalam satu tahun (V)	Waktu Penyelsaian Volume Kegiatan (Wpv = Wpk x v)
1	2	No	3			4	5	6	7	8
Pelayanan Radiologi	A. Persiapan	1	Menyusun rencana bulanan kebutuhan Bahan Medik Habis Pakai (BMHP): a. Mengumpulkan data kebutuhan BMHP	Laporan		0.014	0,01	1,4	12	16,8
		2	Menyusun program kerja pelayanan radiologi, sebagai: a. Anggota	Dokumen		0.025	0,01	2,5	12	30
	B. Pelaksanaan	1	Melakukan tindakan pemeriksaan CT scan non kontras:							
			a. Kepala (skull)	1	Foto rontgen	0.003	0,01	0,3	3252	975,6
			b. Mastoid	1	Foto rontgen	0.003	0,01	0,3	0	0
			c. Tulang-tulang wajah (facial bone)	1	Foto rontgen	0.003	0,01	0,3	0	0
			d. Tulang belakang (columna	1	Foto rontgen	0.003	0,01	0,3	8	2,4

			vertebralis)							
			e. Ekstremitas atas (extremity superior)	1	Foto rontgen	0.003	0,01	0,3	20	6
			f. Ekstremitas bawah (extremity inferior)	1	Foto rontgen	0.003	0,01	0,3	20	6
			g. Thorax	1	Foto rontgen	0.003	0,01	0,3	1	0,3
			h. Perut (abdomen)	1	Foto rontgen	0.003	0,01	0,3	32	9,6
			i. Panggul (pelvis)	1	Foto rontgen	0.003	0,01	0,3	0	0
			j. Nasofaring	1	Foto rontgen	0.003	0,01	0,3	0	0
			k. Laring	1	Foto rontgen	0.003	0,01	0,3	0	0
			l. Mediastinum	1	Foto rontgen	0.003	0,01	0,3	1	0,3
			m. Abdomen atas	1	Foto rontgen	0.003	0,01	0,3	32	9,6
			n. Abdomen bawah	1	Foto rontgen	0.003	0,01	0,3	32	9,6
			o. Abdomen 3 phase	1	Foto rontgen	0.003	0,01	0,3	0	0
		2	Melakukan tindakan pemeriksaan CT scan dengan kontras							
			a. Kepala (skull)	1	Foto rontgen	0.004	0,01	0,4	91	36,4
			b. Mastoid	1	Foto rontgen	0.004	0,01	0,4	0	0
			c. Tulang-tulang wajah (facial bone)	1	Foto rontgen	0.004	0,01	0,4	0	0
			d. Rahang atas (maxilaris)	1	Foto rontgen	0.004	0,01	0,4	0	0
			e. Nasofaring	1	Foto rontgen	0.004	0,01	0,4	29	11,6
			f. Leher	1	Foto rontgen	0.004	0,01	0,4	68	27,2
			g. Thorax	1	Foto rontgen	0.004	0,01	0,4	68	27,2
			h. Abdomen	1	Foto rontgen	0.004	0,01	0,4	96	38,4
	C. Pelaporan dan Evaluasi	1	Menyusun laporan Kinerja pelayanan radiologi, sebagai:	Dokumen		0.021	0,01	2,1	12	25,2
			a. Anggota							
			Total Wpv adalah :						ΣWpv	1232,2

Table 2. Formation calculation table for young level expert radiographer

Unsur	Sub Unsur		Butiran Kegiatan	Satuan Hasil	Keterangan	Angka Kredit	Konstanta (K)	Waktu Penyelsaian Butir Kegiatan (Wpk = Akb/Kt)	Volume Kegiatan dalam satu tahun (V)	Waktu Penyelsaian Volume Kegiatan (Wpv = Wpk x v)
1	2	No	3			4	5	6	7	8
Pelayanan Radiologi	A. Persiapan	1	Menyusun rencana 5 tahunan, sebagai:	Dokumen		0,173	0,02	8,65	0	0
			a. Anggota							
		2	Menyusun rencana bulanan kebutuhan Bahan Medik Habis Pakai (BMHP):							
			a. Menyusun kebutuhan BMHP	Laporan		0,059	0,02	2,95	12	35,4
			b. Merekapitulasi BMHP yang diterima dan digunakan	Laporan		0,057	0,02	2,85	12	34,2
	B. Pelaksanaan	1	Melakukan pengelolaan pelayanan ruangan Radiologi	Laporan		0,007	0,02	0,35	1	0,35

	2	Melakukan tindakan pemeriksaan CT scan non kontras:							
		a. Rahang atas (maxilaris)	1	Foto Rontgen	0,005	0,02	0,25	0	0
		b. Rahang bawah (mandibularis)	1	Foto Rontgen	0,005	0,02	0,25	0	0
	3	Melakukan tindakan pemeriksaan CT scan kontras:							
		a. Ekstrimitas atas (extremity superior)	1	Foto Rontgen	0,003	0,02	0,15	42	6,3
		b. Ekstrimitas bawah (extremity inferior)	1	Foto Rontgen	0,003	0,02	0,15	42	6,3
		c. Laring	1	Foto Rontgen	0,011	0,02	0,55	0	0
		d. Mediastinum	1	Foto Rontgen	0,010	0,02	0,5	68	34
		e. Abdomen atas	1	Foto Rontgen	0,010	0,02	0,5	96	48
		f. Abdomen bawah	1	Foto Rontgen	0,010	0,02	0,5	96	48
		g. Abdomen 3 phase	1	Foto Rontgen	0,011	0,02	0,55	0	0
C.	Pelaporan dan Evaluasi	1 Menyusun Laporan							
		a. 5 tahunan, sebagai: 1. Anggota	Dokumen		0,140	0,02	7	0	0
		b. Tahunan, sebagai Ketua	Dokumen		0,097	0,02	4,85	1	4,85
		2 Menyusun Evaluasi							
		a. 5 tahunan, sebagai: 1. Anggota	Dokumen		0,141	0,02	7,05	0	0
		b. Kinerja pelayanan radiologi, sebagai : 1. Anggota	Dokumen		0,141	0,02	7,05	12	84,6
		c. Pemeliharaan alat-alat prosesing	Setiap Lembar Kerja		0,054	0,02	2,7	12	32,4
		Total Wpv adalah :						ΣWpv	334,4

Conclusion

Based on the results of the calculation of the need for formation of functional positions of expert radiographers in the Radiology Installation of Tugurejo Regional Hospital, Central Java Province, the number of functional formation positions of expert radiographers in the first level was obtained, while young and middle did not have the formation because it was suitable and ideal with the number of Human Resources needs (HR) needed.

We recommend that the ideal number of formations be matched with the results of calculations obtained based on their needs, namely for the first level expert radiograer the results are 0.9858 or rounded up to 1 formation, while the young level expert radiographers are 0.2675 and the middle level is 0.0557 then the two levels cannot be rounded up or cannot be set into formations.

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