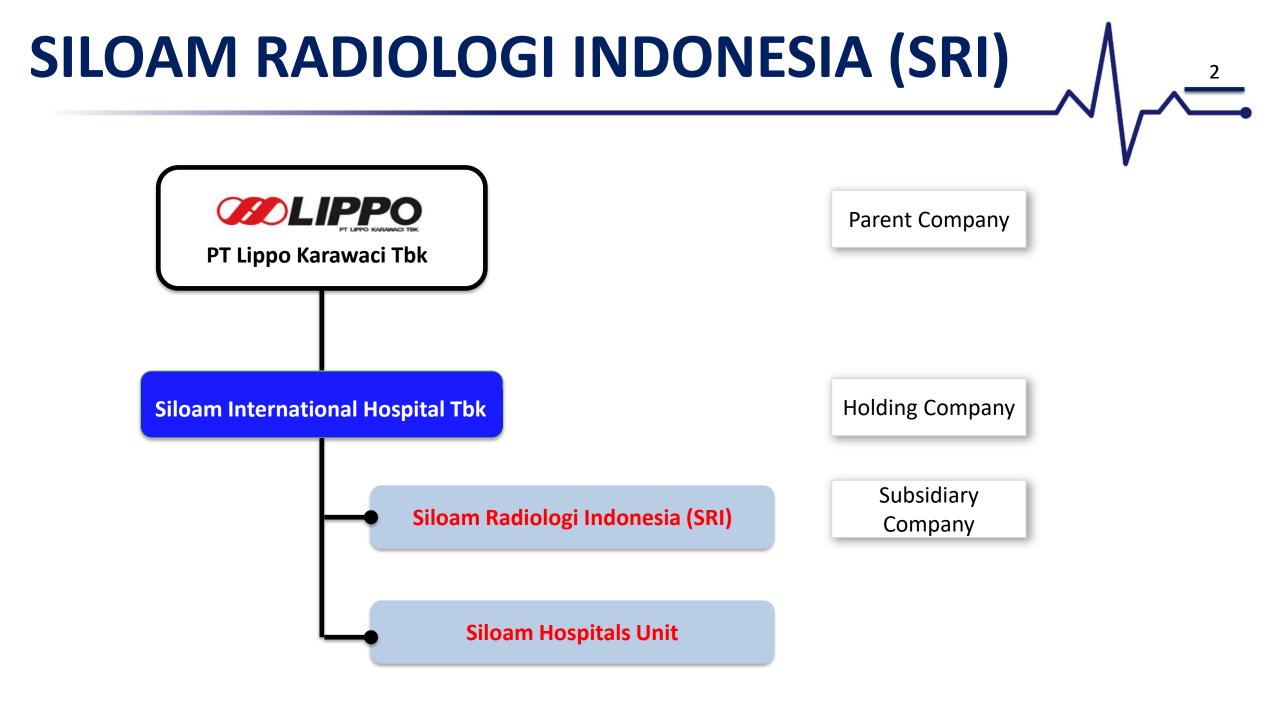
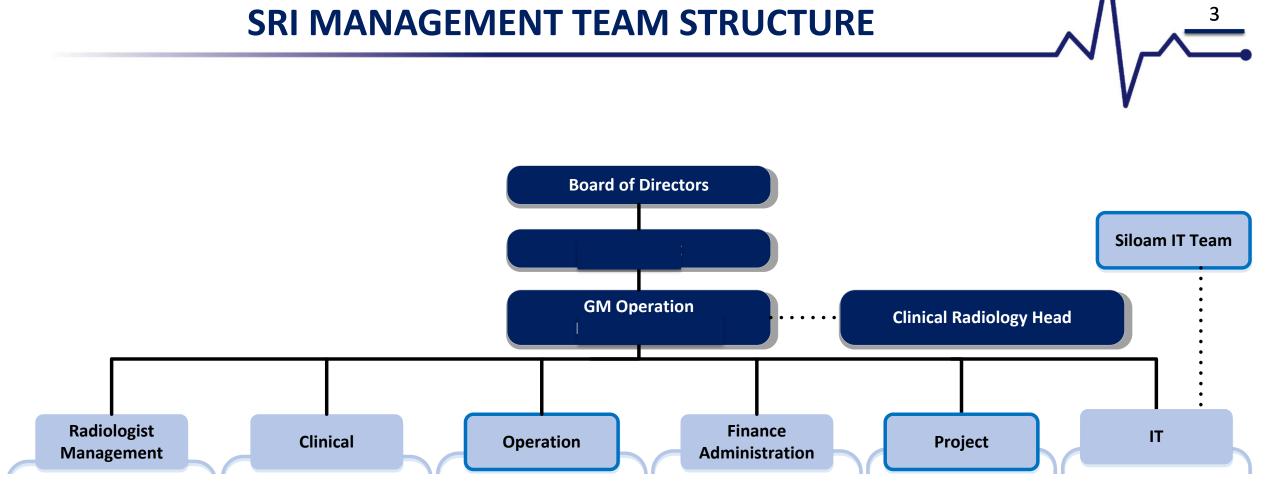




dr. Sri Inggriani, Sp. Rad (K)





Medical imaging have been undergoing rapid advances in recent years.

The volume and complexity of work are steadily increasing, but the supply of the professional workforce is not growing sufficiently to meet this increasing demand.

The workload and work force imbalance is one of the factors which could potentially threaten the quality of care and patient safety.

Siloam group Hospital is one of the great healthcare provider in Indonesia and currently has spread its wings in nearly all corners in Indonesia, until now we have 40 Hospital units in Indonesia.

Radiology is one of the important organisation and must provide leadership, manage this challenging conditions effectively and ensure the quality of care and patient safety.

PROBLEM

Limited number of Radiologists in Indonesia

(1646 Radiologists in 2020 ; 30-50 new specialist p.a. growth Subspecialist Radiologist in Indonesia : +/- 175 Radiologist

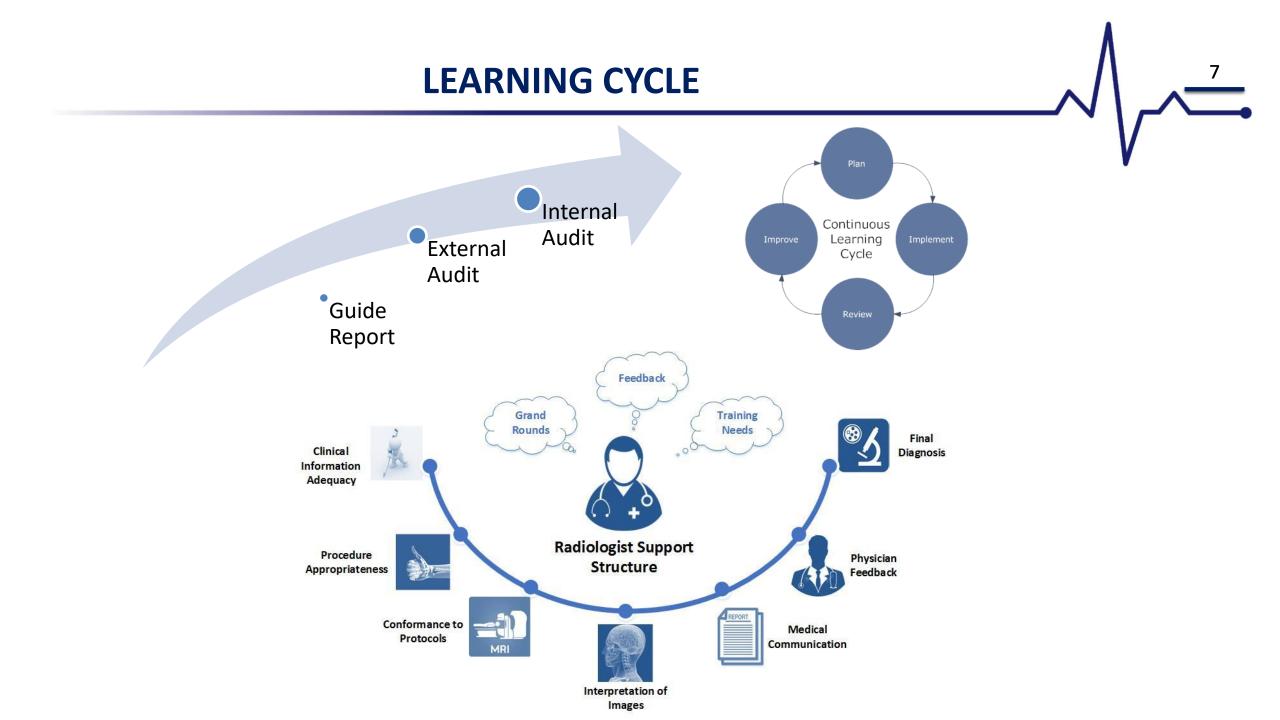
Major Clinical Competency issue in Indonesia

- Licensing for Radiologist : max 3 hospitals
- Clinical Accuracy in reporting (eg Siloam 72% vs Industry benchmark outside 97%
- Low Productivity and Higher cost of Radiology equipment
 - Low productivity (Siloam 9,300 p.a. vs Global Benchmark 14-15,000 p.a.)
 - Rising costs due to higher cost of medical equipments and acessory
 - Using of Hard copies film instead of CD's

GOALS







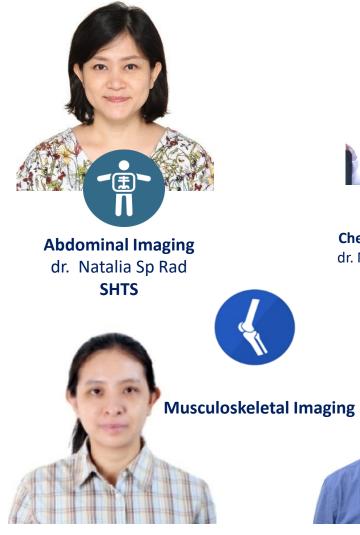
QUALITY IMPROVEMENT ACTIVITIES

- 1. Radiologist Sub specialty Training (Six Sub specialty Radiologist)
- 2. Radiologist Monthly Case Discussion (Error and Clinical) Meeting
- 3. Radiologist Quality Assurance Audit Peer Review for all sites Hospital
- 4. Radiologist Annual Gathering and Radiologist Annual Symposium
- 5. Radiologist e-Bulletin
- 6. Radiology Report Template
- 7. Radiologist National On Call Night Shift SRI
- 9. Radiographers Program (Training, Monthly Case Discussion Meeting, Radiographers Bulletin)

10.Credentialing for the new radiologist recruitement and annual recredential SRI Radiologist



CERTIFIED 6 RADIOLOGIST IN SUB - SPECIALTY FELLOWSHIP



dr. Patricia Jorisal, Sp.Rad SHKJ



dr. Santoso Suhendro, Sp.Rad (K) SHBP



9

Women's Imaging dr. Vera Nevyta, Sp.Rad SHKJ



Central Nervous System Imaging dr. Ratna Sutanto, Sp.Rad (K) SHLV

Day / Date	Radiologists	Hospital Unit				
2019						
Friday, 25th January,2019	DR. dr. Rusli Muljadi, Sp.Rad (K)	SHLV				
Friday, 1st February, 2019	dr. Santoso Suhendro, Sp.Rad (K)	SHBP				
Friday, 29th March, 2019	dr. Nungky Kusumaningtiyas, Sp.Rad	MRCCC				
Friday, 26th April, 2019	dr. Dewi Tantra, Sp.Rad	MRCCC				
Friday, 24th May, 2019	dr. Steven Harsono, Sp.Rad	SHMN				
Friday, 28th June, 2019	dr. Grace Chandra, Sp.Rad	SHMK				
Friday, 30th August, 2019	dr. Daniel Ruslim, Sp.Rad	MRCCC				
Friday, 27th September, 2019	dr. Stephanie Ariyanti, Sp.Rad	SHMD				
Friday, 25th October, 2019	dr. Daniel Nugraha Aji, Sp.Rad	SHJB				
Thursday, 28th November, 2019	dr. Natalia, Sp.Rad	SHTB				
Friday, 20th December 2019	dr. Patricia Jorisal, Sp.Rad	SHKJ				
2020						
Friday, 31 st January, 2020	dr. Vera Nevyta, Sp.Rad	SHKJ				
Thursday, 27 th February, 2020	dr. Made Kurniati, Sp.Rad	SHTB				
Ender 27th March 2020	Dr.dr. Rusli Muljadi, Sp.Rad(K)					
Friday, 27 th March, 2020	dr. Sri Inggriani, Sp.Rad(K)	—SRI				
Thursday, 14 th May, 2020	Dr.dr. Rusli Muljadi, Sp.Rad(K)	SRI				
Ender 20th lung 2020	dr. Steven Harsono, Sp.Rad	SHMN				
Friday, 26 th June, 2020	dr. Yonathan William, Sp.Rad	SHKJ				
Friday, 5 th August, 2020	dr. Grace Chandra, Sp.Rad, DFM	SHMK				

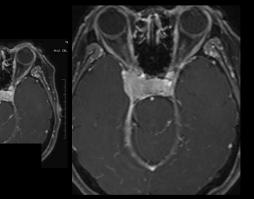
Case 3

Woman, 64 y.o right cavernous sinus meningioma

Massa tumor extraaxial menyangat kontras dengan dural tail di parasellar kanan yang mengobliterasi sinus cavernosus kanan, Meckel cave kanan dan fisura orbitalis superior kanan, memberikan encasement ke arteri karotis interna kanan serta menonjol ke intrasella(ukuran +/- 2.7 x 2.34 x 2.5 cm :Cavernous Sinus Meningioma kanan.

Massa tampak mendesak pangkal nervus opticus kana hipofise.

Chiasma opticum normal



10

Learning point

- Cavernous sinus mengioma encasing ICA with extensions into sella, Superior Orbita Fissure and Meckel's cave
- Extra cerebral tumor especially meningioma should raise for dural involvement /dural tail

 $\underline{Dural\ enhancement\ extending\ to\ the\ posterior\ fossa\ }$ along the dorsum sella and clivus + tentorium

RADIOLOGIST QUALITY ASSURANCE AUDIT PEER REVIEW



Quality Assurance Audit Workshop

8th October -	11th October 2018	Audit Workshop 1
21st January -	24th January 2019	Audit Workshop 2
13th May-	16th May 2019	Audit Workshop 3
17th June -	20th June 2019	Audit Workshop 4
5th August -	8th August 2019	Audit Workshop 5
2nd September -	6th September 2019	Audit Workshop 6

Radiologist	Audit Sample Size	Audit Cases Type
dr. M Y Sp.R(K)	60	General + Chest and Cardiac Imaging
dr. N Sp.Rad	30	General + Abdominal Imaging
dr. PJ. Sp.Rad	60	General + Musculoskeletal Imaging
dr. RS, Sp.R(K)	60	General + Central Nervous System Imaging
dr. RM Sp.R(K)	60	General + Cardiac and Thoracic Imaging
dr. SS Sp.R (K)	60	General + Musculoskeletal Imaging
dr. SI Sp.R(K)	60	General + Abdominal imaging
dr. VN Sp.R	60	General + Women Imaging

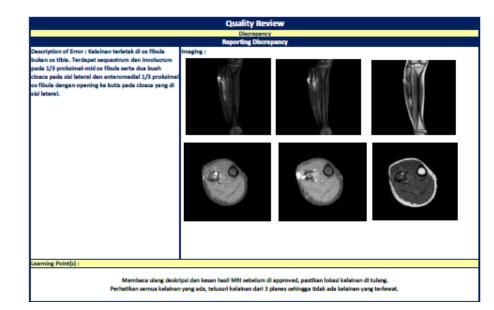
RADIOLOGIST SUB - SPECIALTY QUALITY AUDIT PEER REVIEW FORM

13



Radiology Subspecialty Quality Audit Peer Review

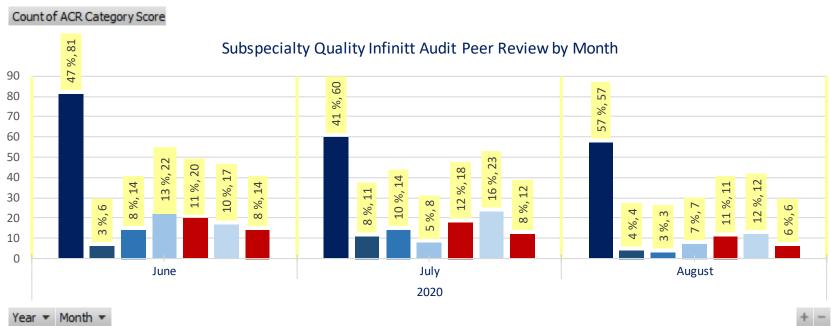
		ogi ognopeer	and guard manuel cer me
Accession #	-	Date of Examination	-
Medical Record #		Hospital Unit	•
Patient Name		Reporting Rediologist	
Patient Age		Drafting Radiologist	:
Examination	: MRI MUSC CRURIS NON - CONTI	Modelity	: MR
Return to	:	Before	://
Audit Date	:	Auditor Name	: dr. PJ, Sp.Red
Auditor's Comment	:	Auditor Signature	:
		ACR Category of Error	:
		10	3a
		1b	3b
		20	4a



American College Radiology RADPEER Scoring System

Journal of the American College of Radiology/Vol. 6 No. 1 January 2009

Score Meaning		Optional		
1	Concur with interpretation			
2	Discrepancy in interpretation/not ordinarily expected to be made (understandable miss)	a. Unlikely to be clinically significant b. Likely to be clinically significant		
3	Discrepancy in interpretation/should be made most of the time	 a. Unlikely to be clinically significant b. Likely to be clinically significant 		
4	Discrepancy in interpretation/should be made almost every time—misinterpretation of finding	 a. Unlikely to be clinically significant b. Likely to be clinically significant 		



Year 💌 Month 💌

Count of ACR Category Score	Col 🔽	n Labe	els					
Row Labels 🛛 🚽	1	2 a	2b	3 a	3b	4a	4b	Grand Total
□ 2020	198	21	31	37	49	52	32	420
June	81	6	14	22	20	17	14	174
July	60	11	14	8	18	23	12	146
August	57	4	3	7	11	12	6	100
Grand Total	198	21	31	37	49	52	32	420

RADIOLOGIST ANNUAL GATHERING August 3, 2019 Aryaduta

Participant: 29 SRI's Radiologist Topic: Update SOP, Critical Finding, Q&A



RADIOLOGIST SYMPOSIUM

15

August 3-4, 2019 Fakultas Kedokteran UPH

Topic: Oncology Imaging



RADIOLOGIST e-BULLETIN



OKTOBER 2019







SILOAM RADIOLOGI INDONESIA(SRI)

dasarkan klasifikasi uyeri kepada dari uyeri kepada primer, yang dida International Hendache Society (IHS), berdaankan gamharan Mini, dan biasan terdapat islihi "isyeti kepala primer" belam memedukan pencitman kecadi la operti jenik ketugangan (Ziwan inakolo), uyeri kepala primer yang disertal denge nignán, dan uveri kepala chatter (Claster defisit neurologis Anderlet, dan "nveri kenala sekunder". 2. Nveri kenala sekunder vanz di 3. Nyeri kepala sekunder yang kur veri kenala yang berbahaya dan mirip meri kenala r

perlu dilakukan pencitraan. Diagnosis nyeri kepala prin Kebanyakan meri kepala m

SILOAM RADIOLOGI INDONESIA (SRI)



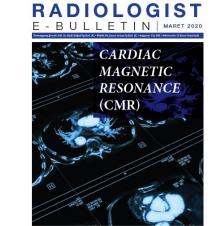
SILOAM RADIOLOGY INDONESIA (SRI)

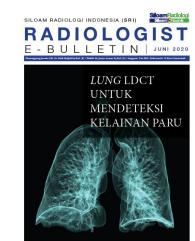


LETIN

BU

encitraan MRI dinamik dasar pelvis Pupalit faqoinal pala daar pelo aspeti pelap ogan d angat berguna bagi pasien yang akan difungi luang si bear nenyerentakan satu masihi keelata yang seing kal djumpai, itrasasya pala pasien wasits. Seitar 159 akan operasi dan bagi klinisi wainm an medis di klinik sabata untuk dapat memilih tindakan operasi merai butun mela dikak udu esdusi. Kondé brikat songt ne yang sesuai.









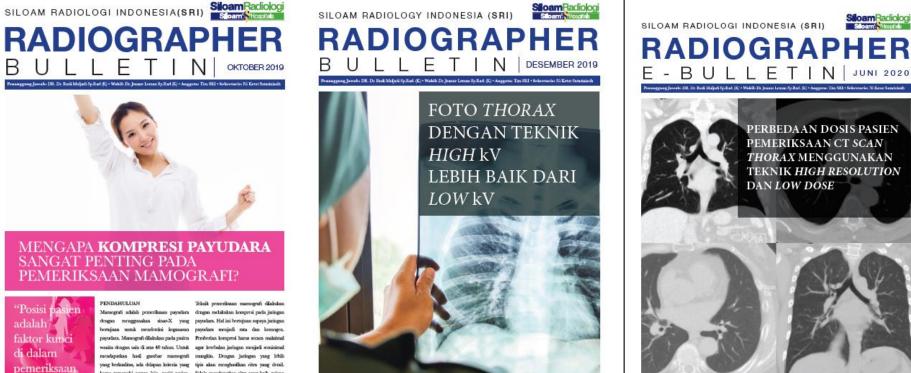
2019

Stoam Radiologi

JUNI 2020

RADIOGRAPHER e-BULLETIN

JULY 2019



RADIOGRAPHER BULLETIN |

PERBEDAAN DOSIS PASIEN PEMERIKSAAN CT SCAN THORAX MENGGUNAKAN TEKNIK HIGH RESOLUTION

DAN LOW DOSE

N



RADIOGRAPHER BULLETIN 1

karena tidak menggunakan radiasi pengion serta tanpa risiko."

L PENDAHULUAN "Pemeriksaan ini sangat aman MRA murka

(LOWER EXTREMITY MRA)

MRA TUNGKAI

tange money MRA (Mapute Romano Aquigraphy) tungkai dalam pembuluh darah. Pemerikaan ini adalah pemerikasan pembuluh darah tungkai sangat aman karma tidak menggunakan modalitas MRI (Megeeter radiasi pengion serta tanpa risiko karena Roman Imariné, Trknik remrrikasan MRA tidak memanukkan bahan kontras ke dalam tungkai ada dua yaitu MRA tunpa kontras pembuluh darah dan tidak memerlukan (Net ontroit MRA) dan MRA dragan kontras persiapan, sangat baik digunakan untuk (Central orbanos MRA) skrining trautama untuk pasira dengan kelainan pembaluh darah yang mengalami non contrast adalah gangguan fungsi ginjal dengan GFR di bawah

SILOAM RADIOLOGI INDONESIA(SRI)

RADIOGRAPHER

pemerikasan pembuluh darah tungkai 60. Kekurangannya, terkarlang timbul artefak dengan mengrunakan modalitas MRI karena waktu remerikaan yang lama.

RADIOGRAPHER BULLETIN | 1

Posisi

adalah

mamografi.

harus terpenuhi antara lain, posisi pasien. Selain mendaratkan citra yang baik, tujuan

faktor eksposi, komprosi, ketajaman, kontras, 🛛 pemberian komprosi yang maksimal adalah

erefak, anis, dan labdiar

agar dosis yang distrima pasirn lehih sendah.

RADIOGRAPHER BULLETIN | 1



RADIOLOGY REPORT TEMPLATE

CT Abdomen and Pelvis with oral and intravenous contrast:

LIVER:

- Features of chronic liver disease in the form of volume redistribution, widened fissures, retraction from the anterior abdominal wall, rounded margins and undulated surface.
- Ill-defined/ well-defined, solid, round/irregular, homogeneous/ heterogeneous focal lesion in segment......measuring........mtat appears: byppdgggg/siodense/ hyperdense on PLAIN scan, non-enhancing/ enhancing on ATTERIAL phase, hyperdense/ isodense/ washed-out on EARLY VENOUS PHASE, hyperdense/ isodense/ washed-out on LATE VENOUS phase, and associated with intra-lesion arterial flow/ AV shunting.
- Cyst(s) in segment....., measuring......
- Mosaic attenuation/ flip-flop phenomenon

SPLEEN:

- Normal/ mildly/ moderately/ markedly enlarged
- Scattered Gamna-Gandy bodies
- Foci of hypoperfusion/ infarction

PORTAL VENOUS SYSTEM:

- PV =
- SUPERIOR MESENTERIC VEIN =
- SV =
- Recanalized umbilical vein =
- Collaterals noted in the perigastric/ peripancreatic/ splenic hilar/ perisplenic/ periesophageal/ pericholedochal region.
- Portal cavernoma at the porta replacing the normal portal vein.
- Enhancing/ non-enhancing thrombosis of the main portal vein, bifurcation, right portal vein, left portal vein, intrahepatic portal venous branches.
- Chronic occlusion of the main portal vein, bifurcation, right portal vein, left portal vein replaced by collaterals.

HEPATIC ARTERIAL ANATOMY:

IVC, HEPATIC VEINS:

- Intrahepatic venous collaterals between the hepatic and portal venous systems.
- Short segment IVC narrowing at the level of the hepatic venous ostia.
- IVC web
- RHV thrombosis/ occlusion/ non-filling/ delayed filling
- MHV thrombosis/ occlusion/ non-filling/ delayed filling
- LHV RHV thrombosis/ occlusion/ non-filling/ delayed filling
- Smooth extrinsic compression of the intrahepatic IVC without evidence of intrahepatic venous collateralization or abnormal hepatic veins.

BILIARY SYSTEM and GALL BLADDER:

- Pericholedochal venous collaterals and collaterals in the GALLBLADDER wall.
- GALLBLADDER wall edema/ increased thickness = ...mm

PANCREAS: ADRENALS: KIDNEYS: PELVI-CALYCEAL SYSTEMS: URETERS: BLADDER:

BOWEL:

 Portal gastropathy, portal enteropathy, gortal colopathy in the form of thickened, edematous mucosa involving the

PERITONEUM, OMENTUM, MESENTERY: NODES:

FLUID: mild/ moderate/ massive ascites

UTERUS / PROSTATE: OVARIES / SEMINAL VESICLES:

VISUALIZED BONES and JOINTS: VISUALIZED LUNGS:

ABDOMINAL WALL:

- Collaterals in the anterior abdominal wall

IMPRESSION:

CT Abdomen and Pelvis with oral and intravenous contrast demonstrates features suggestive of:

- 1. Cirrhosis
- 2. Portal hypertension
- 3. Splenomegaly
- Ascites
- 5. Focal liver lesion in segment......(LIRADS Category 1/2/3/4/5)
- HCC (LIRADS Category 5) in segments......with portal vein/ hepatic vein/ IVC tumour/ bland thrombus, satellite nodules, bile duct invasion, extracapsular invasion, diaphragmatic infiltration, peritoneal metastases, nodal metastases, lung metastases
- 7. EHPVO (portal cavernoma)
- 8. Budd-Chiari syndrome
- 9. Portal gastropathy/ enteropathy/ colopathy/ biliopathy
- 10. Hepatic arterial anatomy conventional / variants.....

ΤQ

RADIOLOGIST NATIONAL ON – CALL NIGHT SHIFT SRI

SRI N	light Call_Schedule - November 2019
1	20.00 malam - 08.00 hari berikutnya
2	20.00 malam - 08.00 hari berikutnya
	08.00 - 20.00
3	20.00 malam - 08.00 hari berikutnya
4	20.00 malam - 08.00 hari berikutnya
5	20.00 malam - 08.00 hari berikutnya
6	20.00 malam - 08.00 hari berikutnya
7	20.00 malam - 08.00 hari berikutnya
8	20.00 malam - 08.00 hari berikutnya
	08.00 - 20.00
9	20.00 malam - 08.00 hari berikutnya
1222	08.00 - 20.00
10	20.00 malam - 08.00 hari berikutnya
11	20.00 malam - 08.00 hari berikutnya
12	20.00 malam - 08.00 hari berikutnya
13	20.00 malam - 08.00 hari berikutnya 20.00 malam - 08.00 hari berikutnya
14	20.00 malam - 08.00 hari berikutnya 20.00 malam - 08.00 hari berikutnya
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23	20.00 malam - 08.00 hari berikutnya
24	08.00 - 20.00
	20.00 malam - 08.00 hari berikutnya
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26	20.00 malam - 08.00 hari berikutnya
27	20.00 malam - 08.00 hari berikutnya
28	20.00 malam - 08.00 hari berikutnya
29	20.00 malam - 08.00 hari berikutnya
30	20.00 malam - 08.00 hari berikutnya

MRCCC, SHJB, SHTB, SHMK, SHLL
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RADIOLOGIST NEW RECRUIT CREDENTIAL & ANNUAL RE - CREDENTIAL

		Radiologist CV		gist Re – Cred	ential Total Quality Score
	Radiologist Name Date Updated		20%	Olla and Dealistani	17
SiloamRadiologi	Qualifications	Scoring	4	Siloam Radiologi Siloam Hospitals	
Siloam	Undergraduate :	Fill in Years of completion & University Details 2003, University of Udayana 2009, University of Medicine 1		TOTAL QUALITY SCORE	Name: dr. Dotte: 6/2 To Type: Re
Radiologist Performance Historical Ar	nalysis	2017, PD5RI		CV : C2 Codentialing : Codentialin	Score File 20% Mira Turiarti - 2020 Redologist Curriculum Vise Scorlog 80% Mira Turiarti - 2020 Redologist Ra - Credential 80% Mira Turiarti - 2020 Redologist Ra - Credential 80% Mira Turiarti - 2020 Redologist Performance Historical Analysis 90% Mira Turiarti - 2020 Redologist Performance Historical Analysis 90% Mira Turiarti - 2020 Redologist Performance Historical Analysis
RVU 2,662 2,573 2,440 1,689 1,906 2,159 2,796 2,213 FTE 0.83 0.96 1.00 0.79 1.00 1.00 1.00	Job 1 :	Fill in Designation, Institution Name, Period General Practitioner, SOS Gatot Kaca Clinic, 2003 - 2004		Productivity	90% Mira Yurlarti - 2020 Reficient Performance Historical Acelosia 90% Mira Yurlarti - 2020 Reficients Performance Historical Acelosia
PRODUCTIVITY 2400 133% 112% 102% 89% 79% 90% 116% 92%	Job 2 :	Radiologist, Omni Hospital, 2009 - 2010		Accuracy	
TAT Compliance 59% 60% 74% 51% 61% 78% 69% 80%	Job 3 : Job 4 :	Radiologist, Siloam Hospitals Lippo Village, 2010 - present		5) Historical Participation : (Ignore for New Perrults)	
PARTICIPATION	: C dol			Monthly Disscusion Meeting	67% Attendance 2020
ERROR MEETING 6 V	Job 6 :		I	Grandround meeting	
GRAND ROUND	: 7 dol 7 : 8 dol 2		I		
FRS	: e dol		I	Final Score (point 1 - 6) :	74%
HOSPITAL	Job 10 :		I		
AVG REVENUE	Total number of years working in Radiology	11	I	· · · · ·	
AVG REVENUE (Last Review)	since postgraduation		I		Feedback Improvement Plan
	Teaching Experience		0		
		Fill in Designation, Institution Name, Period			
Notes	Tutor :	1	0		
ROLLS	Lecturer :				
	Thesis Guide : Post Graduate Teaching :				
	Medical College Adjuct Faculty				
	International	3	2 0		
Productivity	Medical College Adjuct Faculty National :	1	5 0		e ngetahui
	Medical College Adjuct Faculty				
140%100%100%	Local :	1	0	D	R. dr. Rusli Muljadi, Sp.Rad (X) dr. Sri Inggriani, Sp.Rad (K)
107% R ² = 0.29827% 80%					
200% 29% 27% 27% 70%	Research Experience		0		
80% 60%	0-1 year :	Fill in the Number of Research			
60X 50X	> 1 year :				
40%	,	·			
20% 20%	Administrative Experience		0		
0% 10%		Fill in Institution Name, Period			
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Unit Coordinator : Academic Coordinator :				
φ ² , φ ² , σ ² , φ ² ,	Department Head :				
		·			

