

# PenRad.... MAMMOGRAPHY INFORMATION SPECIALISTS...

## PenRad Auto Read HL7 Interface Specifications

### OUTBOUND RESULTS FROM RIS OR DICTATION SYSTEM INTO PENRAD AUTO READ

Required Items in the result message: Radiologist ID, Technologist ID (if collecting Tech statistics), Text of the report, Referring Physician ID (if you wish to list the referring physician in patient letters), Accession Number, Exam Code (Charge Code, or Numonic to refelct the exam type), Approve Time, Exam Time, Patient Name, Patient ID.

Optional items to be included in the result message: Patient Date of Birth, Patient Alternate ID, Location

Following the format that PenRad uses for Outbound Result Messages:

#### SAMPLE RESULT:

```
<MSH|^~\&|PENRAD||RADIOLOGY|199905261733||ORU^R01|333013|P|2.2||A|AL|
PID|000503030^^^A||LASTNAME^Patricia^Maxine^||19330114||||||||0021445713||||||
OBR||1452203|41016^DBC SCR N MAMMO||199905260000|199905260000|199905261229||||CLINICAL:Screening
Mammogram||5991^LASTNAME^JAY||||199905261229||F|||||20853^GREER^MICHELLE|5991^LASTNAME^JAY|
OBX|1|TX||#1452203 - DBC SCREENING MAMMO~BILATERAL SCREENING MAMMOGRAM: 5/26/2000~CLINICAL:
Screening Mammogram~~Comparison is made to exam dated: 5/15/1998 XX Medical Center. ~The tissue of both breasts
is heterogeneously dense. This may lower the ~sensitivity of mammography.~Scattered calcifications are present in the
right breast as well as ~scattered benign appearing calcifications in the left breast.~No significant masses, calcifications,
or other findings are seen in ~either breast. ~IMPRESSION:NEGATIVE - MAMMOGRAM~There is no mammographic
evidence of malignancy.~A follow-up mammogram in 12 months is recommended.~~The patient was notified of the
results.~~JAY LASTNAME M.D.~jc/:5/26/1999 letter sent: Benign Findings ~~~Imaging Technologist: MICHELLE
LASTNAME RT(R)(M), XX Medical Center~BiRADS: 2~|||||F||199905260000||
>
```

### DETAILED RESULT MESSAGE LAYOUT

#### MSH SEGMENT

Key: S=Segment, P=Position, L= Length, T= Type, R= Required Y/N, N= Name of segment

S	P	L	T	R	N (HL7 Definition)	Value
MSH	0	3	ST		Segment Name	
MSH	1	1	ST		Field separator	
MSH	2	4	ST		Encoding characters	
MSH	3	15	ST		Sending application	
MSH	4	20	ST		Sending facility	
MSH	5	30	ST		Receiving application	
MSH	6	30	ST		Receiving facility	
MSH	7	26	TS		Date/time of message	
MSH	8	40	ST		Security	
MSH	9	7	CM		Message type	
MSH	10	20	ST		Message Control ID	
MSH	11	1	ID		Processing ID	
MSH	12	8	ID		Version ID	
MSH	13	15	NM		Sequence number	
MSH	14	180	ST		Continuation pointer	
MSH	15	2	ID		Accept acknowledgement type	
MSH	16	2	ID		App acknowledgement type	

**PID SEGMENT - PATIENT INFORMATION**

Key: S=Segment, P=Position, L= Length, T= Type, R= Required Y/N, N= Name of segment

S	P	L	T	R	N (HL7 Definition)	Value
PID	0	3	ST		Segment Name	
PID	1	4	SI		Set ID - Patient ID	
PID	2	16	CK		Patient ID (External ID)	
PID	3	20	CM		Patient ID (Internal ID)	
PID	4	12	ST		Alternate Patient ID	
PID	5	100	PN		Patient Name	Last Name^First Name^Middle^First Title^Last Title
PID	5.1	48	PN		Last Name	
PID	5.2	48	PN		First Name	
PID	5.3	48	PN		Middle Name	
PID	5.4	5	PN		First Title	
PID	5.5	5	PN		Last Title	
PID	7	26	TS		Date of Birth	YYYYMMDD
PID	18	20	CK		Patient Account Number	

**OBR SEGMENT - OBSERVATION REQUEST**

OBR 2 or 3 contains the unique exam number(PenRad will replicate the Order).

Key: S=Segment, P=Position, L= Length, T= Type, R= Required Y/N, N= Name of segment

S	P	L	T	R	N (HL7 Definition)	Value
OBR	0	3	ST		Segment Name	
OBR	1	4	SI		Set ID - Observation Request	
OBR	2	75	CM		Placer Order Number	See note above
OBR	3	75	CM		Filler Order Number	See note above
OBR	4	200	CE		Universal Service ID	Exam Code^Exam Desc (Provide Mapping Table)
OBR	6	26	TS		(Imaging) Date/time	Date Time of Tech Completion
OBR	7	26	TS		Observation Date/Time #	Date Time of Tech Completion
OBR	8	26	TS		(Approval) End Date/Time #	Date Time of Radiologist Completion
OBR	16	60	CN		Ordering Provider	Referring Doctor ID
OBR	22	26	TS		Results Rpt/Status Chng D/T	
OBR	25	1	ID		Result Status	F(Final),C(Corrected or Amended), or P(Preliminary)
OBR	32	60	CM		Principal Result Interpreter	Radiologist1
OBR	33	60	CM		Assistant Result Interpreter	Radiologist2
OBR	34	60	CM		Technician	Technologist

**OBX SEGMENT - OBSERVATION RESULTS**

Key: S=Segment, P=Position, L= Length, T= Type, R= Required Y/N, N= Name of segment

S	P	L	T	R	N (HL7 Definition)	Value
OBX	0	3	ST		Segment Name	
OBX	1	4	SI		Set ID - Observational Simple	
OBX	2	2	ID		Value Type	
OBX	3	80	CE		Observation Identifier	
OBX	4	20	ST		Observation Sub-ID	
OBX	5	9999*			Observation Value	Text of the Report
OBX	11	2	ID		Observ Result Status	F(Final),C(Corrected or Amended), or P(Preliminary)
OBX	14	26	TS		Date/Time of theObservation	