

# PAMとPDQについて

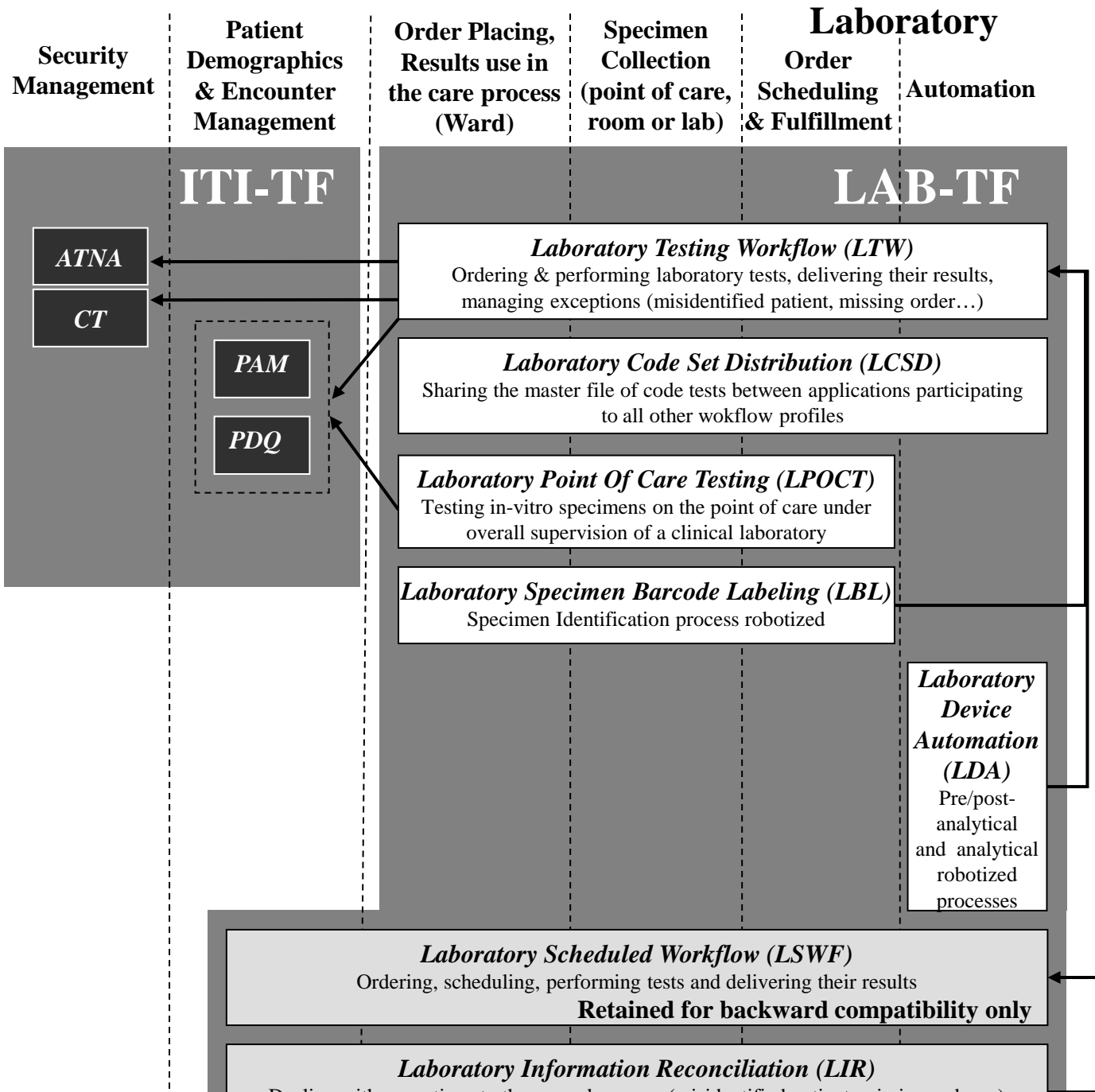
コネクタソン2010

ベンダワークショップ用

日本IHE協会 接続検証委員会

# PAM、PDQが必要なプロファイル

- Laboratory TF 2.0から
  - LTW(Laboratory Testing Workflow)
  - LPOCT(Laboratory Point Of Care Testing)
- のプロファイルで患者情報の取得はPAM、PDQに依存するようになった
- Radiology TF9.0から
  - IRWF(Import Reconciliation Workflow)
- でimporterが[ITI-21]で患者情報を取得



Security Management

Patient Demographics & Encounter Management

Order Placing, Results use in the care process (Ward)

Specimen Collection (point of care, room or lab)

Laboratory Order Scheduling & Fulfillment

Laboratory Automation

ITI-TF

LAB-TF

ATNA  
CT

PAM  
PDQ

**Laboratory Testing Workflow (LTW)**  
Ordering & performing laboratory tests, delivering their results, managing exceptions (misidentified patient, missing order...)

**Laboratory Code Set Distribution (LCSD)**  
Sharing the master file of code tests between applications participating to all other workflow profiles

**Laboratory Point Of Care Testing (LPOCT)**  
Testing in-vitro specimens on the point of care under overall supervision of a clinical laboratory

**Laboratory Specimen Barcode Labeling (LBL)**  
Specimen Identification process robotized

**Laboratory Device Automation (LDA)**  
Pre/post-analytical and analytical robotized processes

**Laboratory Scheduled Workflow (LSWF)**  
Ordering, scheduling, performing tests and delivering their results  
**Retained for backward compatibility only**

**Laboratory Information Reconciliation (LIR)**  
Reconciling information from multiple systems (misidentified patient, missing order...)

DSS/Order Filler

Patient  
Demographics  
Supplier

↑ Import PS in Progress [RAD-59]  
↑ Import PS Completed [RAD-60]

→ Import PS in Progress [RAD-59]  
→ Import PS Completed [RAD-60]

Performed  
Procedure  
Step Manager

Image  
Manager      Image  
Archive

↑ Storage  
Commitment [RAD-10]

↑ Imported Objects  
Stored [RAD-61]

← Import PS in Progress [RAD-59]  
← Import PS Completed [RAD-60]

Importer

← Query Modality Worklist [RAD-5]

→ Patient Demographics Query [ITI-21]

# PAM (Patient Administration Management)

- 基本的にはRadiologyのPIR、LaboratoryのLIRと同じ。
- Patient Identity Feed とPatient Encounter Management がある。

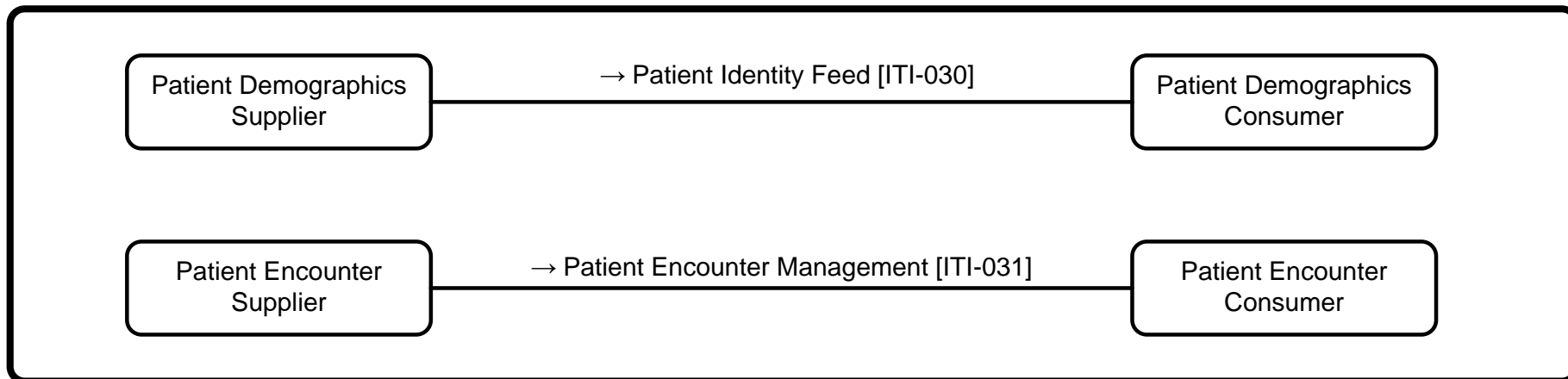


Figure 14.1-1 Patient Administration Management Actor Diagram

# PAM (Patient Administration Management )-2

- PAMでは下図のような情報連携も考慮されている

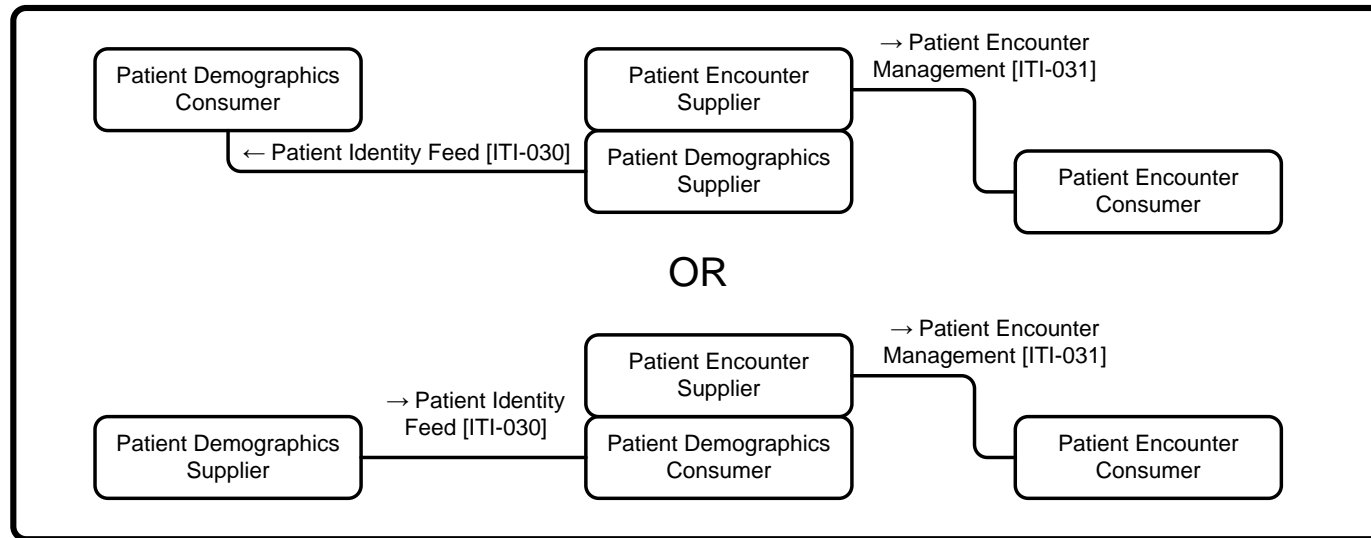


Figure 14.4-1 Patient Encounter Supplier Grouping Requirements

# Patient Identity Feedのイベント一覧

- Required message subset with option “Merge”

Event	Trigger	Message Static definition
Create new patient	A28	ADT^A28^ADT_A05
Update patient information	A31	ADT^A31^ADT_A05
Change Patient Identifier List	A47	ADT^A47^ADT_A30
Merge two patients	A40	ADT^A40^ADT_A39

- Required message subset with option “Link/Unlink”

Event	Trigger	Message Static definition
Create new patient	A28	ADT^A28^ADT_A05
Update patient information	A31	ADT^A31^ADT_A05
Change Patient Identifier List	A47	ADT^A47^ADT_A30
Link Patient Information	A24	ADT^A24^ADT_A24
Unlink Patient Information	A37	ADT^A37^ADT_A37

# Patient Encounter Managementの イベント一覧

Category of event	Trigger / Action			
	insert		cancel	
Admit inpatient	A01	ADT^A01^ADT_A01	A11	ADT^A11^ADT_A09
Register outpatient	A04	ADT^A04^ADT_A01		
Discharge patient	A03	ADT^A03^ADT_A03	A13	ADT^A13^ADT_A01
Update patient information	A08	ADT^A08^ADT_A01		
Merge patient identifier list	A40	ADT^A40^ADT_A39		



# コネクタソンでは「個人情報、患者情報の更新」のみとする

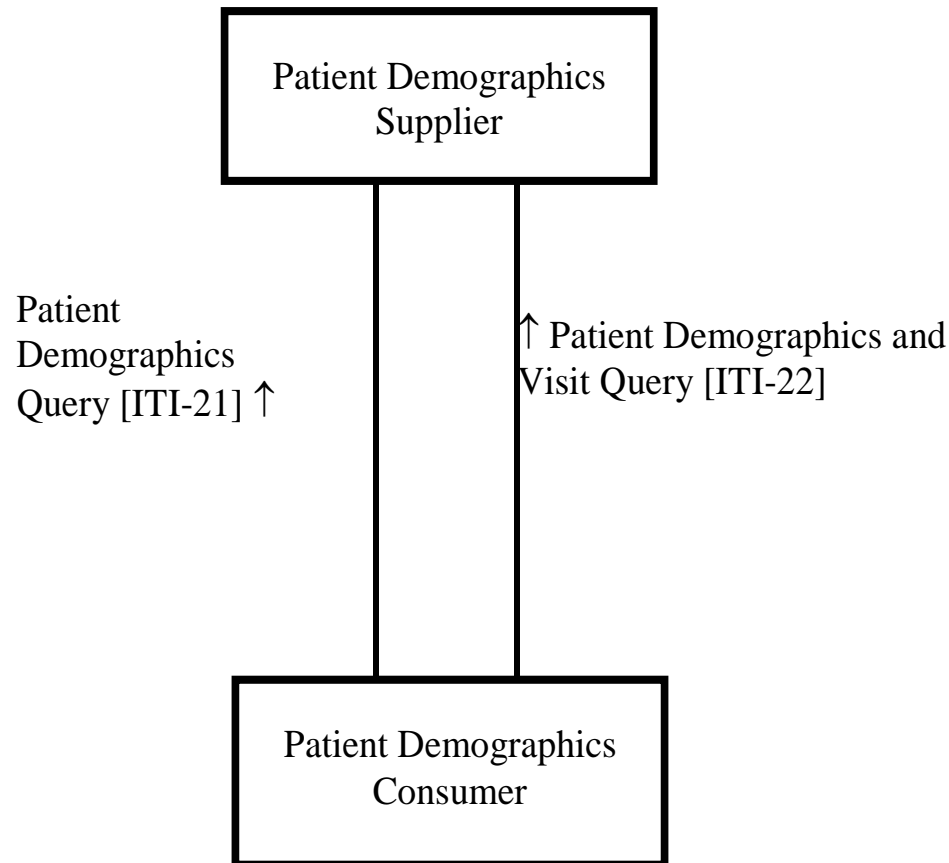
- Patient Identity Feed
  - Update patient information
  - A31 ADT^A31^ADT\_A05
- Patient Encounter Management
  - Update patient information
  - A08 ADT^A08^ADT\_A01
- PR1とROLの関係とPDA以外は同一

# 必須セグメントについて

- PR1 (Procedures ) IN1 (Insurance )が必須セグメントになっているがTF上オプションブロックになっているので省略可能
- →旧来のA08と完全互換
- EVNセグメントの
  - EVN-2(Recorded Data/time TS型)がRになっている。
  - EVN-7(Event Facility HD型)がREになっている。
- PAMとしてはEVNセグメントを必須とします

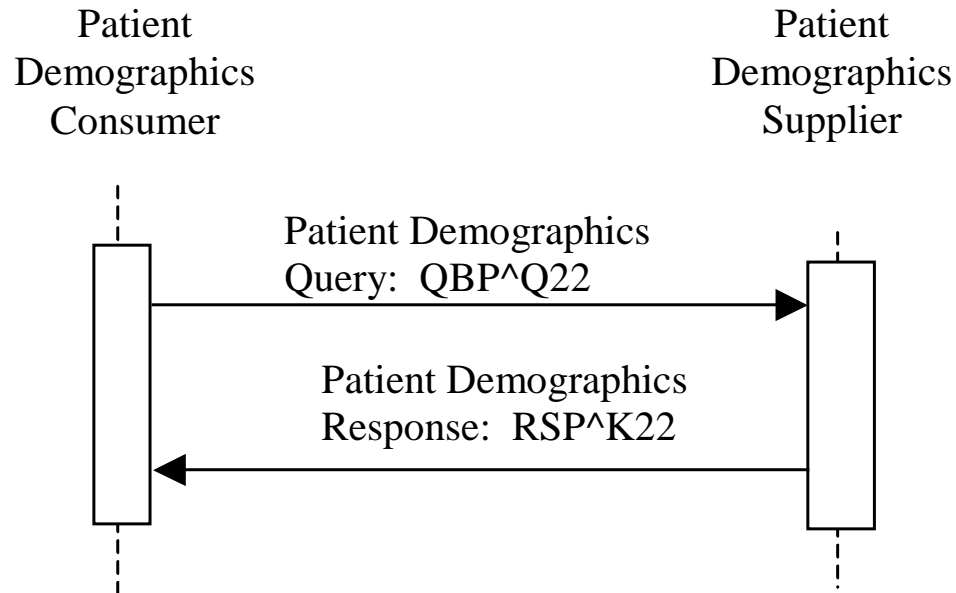
# PDQ (Patient Demographics Query)

- 経産省相互運用性実証実験で行っている「患者基本情報」のクエリとほぼ同じ



# Patient Demographics Query

- QPD-1 (Query Name)は“IHE PDQ Query”
- QPD-3 (Demographics Fields )は
  - @<seg>.<field no>.<component no>.<subcomponent no>
  - PID3-1 (患者ID) のみの場合は **@PID.3.1^0123456789**



# QBPとRSPのメッセージ構造

- MSH-9は
  - QBP^Q22^QBP\_Q21
  - RSP^K22^RSP\_K22

QBP	Query by Parameter	Chapter in HL7 2.5
MSH	Message Header	2
QPD	Query Parameter Definition	5
RCP	Response Control Parameter	5
[DSC]	Continuation Pointer	2

RSP	Segment Pattern Response	Chapter in HL7 2.5
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ {ERR} ]	Error	2
QAK	Query Acknowledgement	5
QPD	Query Parameter Definition	5
[ { PID	Patient Identification	3
[ PD1 ]		
[ QRI ] }	Query Response Instance	5
[ DSC ]	Continuation Pointer	2

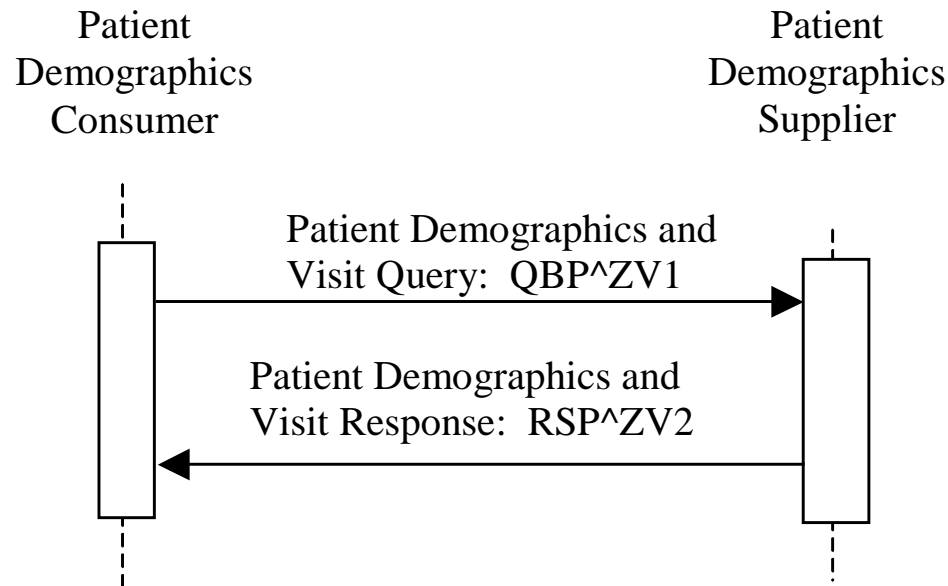
# とりうるクエリパラメータ(PDQ)

- **Table 3.21-3. PDQ Profile – QPD-3 fields required to be supported**
- **複合クエリの例      @PID.5.1.1^SMITH~@PID.8^F**

FLD	ELEMENT NAME
PID.3	Patient Identifier List
PID.5	Patient Name
PID.7	Date/Time of Birth
PID.8	Administrative Sex
PID.11	Patient Address
PID.18	Patient Account Number

# Patient Demographics and Visit Query

- QPD-1 (Query Name)は“IHE PDVQ Query”
- QPD-3 (Demographics and Visit-Related Fields)は
  - @<seg>.<field no>.<component no>.<subcomponent no>
  - PID3-1 (患者ID) のみの場合は **@PID.3.1^0123456789**



# QBPとRSPのメッセージ構造

- MSH-9は
  - QBP^ZV1^QBP\_Q21
  - RSP^ZV2^RSP\_ZV2

QBP	Query by Parameter	Chapter in HL7 2.5
MSH	Message Header	2
QPD	Query Parameter Definition	5
RCP	Response Control Parameter	5
[DSC]	Continuation Pointer	2

RSP	Segment Pattern Response	Chapter in HL7 2.5
MSH	Message Header	2
MSA	Message Acknowledgement	2
[ {ERR} ]	Error	2
QAK	Query Acknowledgement	5
QPD	Query Parameter Definition	5
[ { PID	Patient Identification	3
[ PD1 ]	Additional Patient Demographics	3
PV1	Patient Visit	3
[ PV2 ]	Patient Visit – Additional Information	3
[ QRI ] }	Query Response Instance	5
[ DSC ]	Continuation Pointer	2



# とりうるクエリパラメータ(PDQV)

- PDQに加えて下記のサポートが推奨されている
- **Table 3-22.4. PDQ Profile – QPD-3 fields recommended to be supported**

FLD	ELEMENT NAME
PV1.2	Patient Class
PV1.3	Assigned Patient Location
PV1.7	Attending Doctor
PV1.8	Referring Doctor
PV1.9	Consulting Doctor
PV1.10	Hospital Service
PV1.17	Admitting Doctor
PV1.19	Visit Number

- **複合クエリの例**      **@PV1.3.2^389~@PV1.3.3^2**  
– 部屋番号とベット番号

# PDQのテスト範囲

- LABドメインで参加の場合は
  - PDQ,PDQV両方を実装してください
  - クエリパラメーターはPID3-1(患者ID)のみとします
- IRWFで参加の場合は
  - PDQのみでも構いません
  - クエリパラメータはPID3-1(患者ID)を必須とし、
  - PID-5(患者名)については任意とします