# Esquema proposto para workflow

# 

# MENSAGENS HL7

Este documento descreve as mensagens HL7 suportadas pela plataforma SENTINEL e a sua configuração pré-definida.

## OMG^O19 Placer Order Management (OMGO19ToCmf.xslt)

|  |  |
| --- | --- |
| **CAMPO** | **CONFIGURAÇÃO PRÉ-DEFINIDA** |
| EVN.2 | Case Date Opened |
| EVN.2 | Admitted |
| OBR.4.1 | Test Details Order Procedure |
| OBR.4.2 | Test Details Order Procedure |
| OBR.16.1 | Test Details Ordering Physician Name |
| OBR.16.2 | Test Details Ordering Physician Name |
| OBR.16.3 | Test Details Ordering Physician Name |
| OBX.3.2 = “WEIGHT”  OBX.6 = UNITS  OBX.5 = VALUE | Patient Weight  default: Kilogrammes (KG)  supports: pounds (LB), stones (STONES), kilogrammes (KG) |
| OBX.3.2 = “HEIGHT”  OBX.6 = UNITS  OBX.5 = VALUE | Patient Height  default: metres (M)  supports: metres (M), inches (inches), centimetres (CM) |
| ORC.2.1 | Test Details Order ID |
| ORC.2.2 | Test Details Order ID |
| ORC.7.4 | Test Details Order Requested Date and Time |
| PID.3.1 | Patient ID |
| PID.3.4 | Patient Organisation (default organisation if missing) |
| PID.5.1 | Patient Family Name (last name) |
| PID.5.2 | Patient Given Name (first name) |
| PID.5.3 | Patient Middle Initials |
| PID.5.5 | Patient Title |
| PID.7 | Patient Date of Birth |
| PID.8 | Patient Gender |
| PID.10 | Patient Ethnicity |
| PID.11.1 | Patient Address Line 1 |
| PID.11.2 | Patient Address Line 2 |
| PID.11.3 | Patient City |
| PID.11.4 | Patient County/Region/State |
| PID.11.5 | Patient Postcode/Zipcode |
| PID.11.6 | Patient Country |
| PID.13 | Patient Home Telephone number |
| PID.19 | Patient Second ID |
| PV1.2 | Case Class (converted to in /out-patient) |
| PV1.19 | Case number |
| PV1.3.1 | Patient Point of care (either in or out-patient depends on PV1.2) |
| PV1.3.2 | Patient Ward (either in or out-patient depends on PV1.2) |
| PV1.3.3 | Patient Bed (either in or out-patient depends on PV1.2) |
| PV1.3.4 | Patient Facility Name (either in or out-patient depends on PV1.2) |
| PV1.7.1 | Attending Physician (Consultant) Staff Number |
| PV1.7.2 | Attending Physician (Consultant) Last Name |
| PV1.7.3 | Attending Physician (Consultant) First Name |
| PV1.7.6 | Attending Physician (Consultant) Title |
| PV1.8.1 | Referring Physician Staff Number |
| PV1.8.2 | Referring Physician Last Name |
| PV1.8.3 | Referring Physician First Name |
| PV1.8.6 | Referring Physician Title |
| ZIS.1 | Test Details Order Comments |
| ZPI.4.1 | Maiden Name |

## ORM^O01 General Order Message (ORMO01ToCmf.xslt)

|  |  |
| --- | --- |
| **FIELD** | **OUT OF BOX CONFIGURATION** |
| EVN.2 | Case Date Opened |
| EVN.2 | Admitted |
| OBR.4.1 | Test Details Order Procedure |
| OBR.4.2 | Test Details Order Procedure |
| OBR.16.1 | Test Details Ordering Physician Name |
| OBR.16.2 | Test Details Ordering Physician Name |
| OBR.16.3 | Test Details Ordering Physician Name |
| OBX.3.2 = “WEIGHT”  OBX.6 = UNITS  OBX.5 = VALUE | Patient Weight  default: Kilogrammes (KG)  supports: pounds (LB), stones (STONES), kilogrammes (KG) |
| OBX.3.2 = “HEIGHT”  OBX.6 = UNITS  OBX.5 = VALUE | Patient Height  default: metres (M)  supports: metres (M), inches (inches), centimetres (CM) |
| ORC.2.1 | Test Details Order ID |
| ORC.2.2 | Test Details Order ID |
| ORC.7.4 | Test Details Order Requested Date and Time |
| PID.3.1 | Patient ID |
| PID.3.4 | Patient Organisation (default organisation if missing) |
| PID.5.1 | Patient Family Name (last name) |
| PID.5.2 | Patient Given Name (first name) |
| PID.5.3 | Patient Middle Initials |
| PID.5.5 | Patient Title |
| PID.7 | Patient Date of Birth |
| PID.8 | Patient Gender |
| PID.10 | Patient Ethnicity |
| PID.11.1 | Patient Address Line 1 |
| PID.11.2 | Patient Address Line 2 |
| PID.11.3 | Patient City |
| PID.11.4 | Patient County/Region/State |
| PID.11.5 | Patient Postcode/Zipcode |
| PID.11.6 | Patient Country |
| PID.13 | Patient Home Telephone number |
| PID.19 | Patient Second ID |
| PV1.2 | Case Class (converted to in /out-patient) |
| PV1.19 | Case number |
| PV1.3.1 | Patient Point of care (either in or out-patient depends on PV1.2) |
| PV1.3.2 | Patient Ward (either in or out-patient depends on PV1.2) |
| PV1.3.3 | Patient Bed (either in or out-patient depends on PV1.2) |
| PV1.3.4 | Patient Facility Name (either in or out-patient depends on PV1.2) |
| PV1.7.1 | Attending Physician (Consultant) Staff Number |
| PV1.7.2 | Attending Physician (Consultant) Last Name |
| PV1.7.3 | Attending Physician (Consultant) First Name |
| PV1.7.6 | Attending Physician (Consultant) Title |
| PV1.8.1 | Referring Physician Staff Number |
| PV1.8.2 | Referring Physician Last Name |
| PV1.8.3 | Referring Physician First Name |
| PV1.8.6 | Referring Physician Title |
| ZIS.1 | Test Details Order Comments |
| ZPI.4.1 | Maiden Name |

**Modalidades na worklist**

Logical Observation Identifiers Names and Codes (LOINC) são utilizados para definir a modalidade do exame incluída no pedido do HIS ou a modalidade do relatório/observações a ser incluída na resposta ao HIS, quando um código apropriado exista.

O código LOINC codes tem que ser identificado nas mensagens de retorno para que o HIS possa interpretar correctamente a mensagem.

As seguintes modalidades podem ser pedidas:

|  |  |
| --- | --- |
| **HL7 code** | **Modalidade de exames no Sentinel** |
| LOINC code **11524-0** | ECG de repouso |
| LOINC code **18752-6** | Prova de esforço |
| LOINC code **18754-2** | Holter |
| “Blood Pressure” | MAPA |
| “Rhythm” | ECG de ritmo |
| “Event” | Testes costumizáveis (ex: Holter de eventos) |
| “Spirometry” | Espirometria |
| “Plethysmography” | Pletismografia |

## ORU^R01

| **Location** | **Max Length** | | **Type** | | **Required** | **Description** | | **Comment** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [MSH.1](#ORU_MSH_1) | 1 | | ST | | R | Field Separator | | Default is | |
| [MSH.2](#ORU_MSH_2) | 4 | | ST | | R | Encoding Characters | | Default is ^~\& |
| [MSH.3](#ORU_MSH_3) | 227 | | HD | | O | Sending Application | | Default is Sentinel |
| [MSH.4](#ORU_MSH_4) | 227 | | HD | | O | Sending Facility | | Default is Cardiology |
| [MSH.5](#ORU_MSH_5) | 227 | | HD | | O | Receiving Application | | Configurable |
| [MSH.6](#ORU_MSH_6) | 227 | | HD | | O | Receiving Facility | | Configurable |
| [MSH.7](#ORU_MSH_7) | 26 | | TS | | R | Date/Time of Message | |  |
| [MSH.8](#ORU_MSH_8) | 40 | | ST | | 0 | Security | |  |
| [MSH.9](#ORU_MSH_9) | 15 | | MSG | | R | Message Type | | ORU^R01 |
| [MSH.10](#ORU_MSH_10) | 20 | | ST | | R | Message Control ID | |  |
| [MSH.11](#ORU_MSH_11) | 3 | | PT | | R | Processing ID | | Default is P |
| [MSH.12](#ORU_MSH_12) | 60 | | VID | | R | Version ID | | Default is 2.3.1 |
|  |  | |  | |  |  | |  |
| PID.1 | 4 | | SI | | 0 | SetID | |  |
| PID.2 | 20 | | CX | | B | Patient ID | |  |
| [PID.3](#ORU_PID_3) | 250 | | CX | | R | Patient Identifier List | | By default, simple string expected |
| PID.4 | 20 | | CX | | B | Alternate Patient ID – PID | |  |
| [PID.5](#ORU_PID_5) | 250 | | XPN | | R | Patient Name | |  |
| PID.6 | 250 | | XPN | | O | Mother’s Maiden Name | |  |
| [PID.7](#ORU_PID_7) | 26 | | TS | | O | Date/Time of Birth | |  |
| [PID.8](#ORU_PID_8) | 1 | | IS | | O | Administrative Sex | |  |
| PID.9 | 250 | | XPN | | B | Patient Alias | |  |
| PID.10 | 250 | | CE | | O | Race | |  |
| [PID.11](#ORU_PID_11) | 250 | | XAD | | O | Patient Address | |  |
| PID.12 | 4 | | IS | | B | Country Code | |  |
| [PID.13](#PID_13) | 250 | | XTN | | O | Phone Number - Home | |  |
| PID.14 | 250 | | XTN | | O | Phone Number – Business | |  |
| PID.15 | 250 | | CE | | O | Primary Language | |  |
| PID.16 | 250 | | CE | | O | Marital Status | |  |
| PID.17 | 250 | | CE | | O | Religion | |  |
| PID.18 | 250 | | CX | | O | Patient Account Number | |  |
| [PID.19](#PID_19) | 16 | | ST | | B | SSN Number – Patient | |  |
|  |  | |  | |  |  | |  |
| PV1.1 | 4 | | SI | | O | Set ID - PV1 | |  |
| [PV1.2](#ORU_PV1_2) | 1 | | IS | | R | Patient Class | |  |
| [PV1.3](#ORU_PV1_3) | 80 | | PL | | O | Assigned Patient Location | |  |
| PV1.4 | 2 | | IS | | O | Admission Type | |  |
| PV1.5 | 250 | | CX | | O | Preadmit Number | |  |
| PV1.6 | 80 | | PL | | O | Prior Patient Location | |  |
| [PV1.7](#ORU_PV1_7) | 250 | | XCN | | O | Attending Doctor | |  |
| [PV1.8](#ORU_PV1_8) | 250 | | XCN | | O | Referring Doctor | |  |
| PV1.9 | 250 | | XCN | | B | Consulting Doctor | |  |
| PV1.10 | 3 | | IS | | O | Hospital Service | |  |
| PV1.11 | 80 | | PL | | O | Temporary Location | |  |
| PV1.12 | 2 | | IS | | O | Preadmit Test Indicator | |  |
| PV1.13 | 2 | | IS | | O | Re-admission Indicator | |  |
| PV1.14 | 6 | | IS | | O | Admit Source | |  |
| PV1.15 | 2 | | IS | | O | Ambulatory Status | |  |
| PV1.16 | 2 | | IS | | O | VIP Indicator | |  |
| PV1.17 | 250 | | XCN | | O | Admitting Doctor | |  |
| PV1.18 | 2 | | IS | | O | Patient Type | |  |
| [PV1.19](#ORU_PV1_19) | 250 | | CX | | O | Visit Number | |  |
| PV1.20 | 50 | | FC | | O | Financial Class | |  |
| PV1.21 | 2 | | IS | | O | Charge Price Indicator | |  |
| PV1.22 | 2 | | IS | | O | Courtesy Code | |  |
| PV1.23 | 2 | | IS | | O | Credit Rating | |  |
| PV1.24 | 2 | | IS | | O | Contract Code | |  |
| PV1.25 | 8 | | DT | | O | Contract Effective Date | |  |
| PV1.26 | 12 | | NM | | O | Contract Amount | |  |
| PV1.27 | 3 | | NM | | O | Contract Period | |  |
| PV1.28 | 2 | | IS | | O | Interest Code | |  |
| PV1.29 | 4 | | IS | | O | Transfer to Bad Debt Code | |  |
| PV1.30 | 8 | | DT | | O | Transfer to Bad Debt Date | |  |
| PV1.31 | 10 | | IS | | O | Bad Debt Agency Code | |  |
| PV1.32 | 12 | | NM | | O | Bad Debt Transfer Amount | |  |
| PV1.33 | 12 | | NM | | O | Bad Debt Recovery Amount | |  |
| PV1.34 | 1 | | IS | | O | Delete Account Indicator | |  |
| PV1.35 | 8 | | DT | | O | Delete Account Date | |  |
| PV1.36 | 3 | | IS | | O | Discharge Disposition | |  |
| PV1.37 | 47 | | DLD | | O | Discharged to Location | |  |
| PV1.38 | | 250 | | CE | O | | Diet Type |  |
| PV1.39 | | 2 | | IS | O | | Servicing Facility |  |
| PV1.40 | | 1 | | IS | B | | Bed Status |  |
| PV1.41 | | 2 | | IS | O | | Account Status |  |
| PV1.42 | | 80 | | PL | O | | Pending Location |  |
| PV1.43 | | 80 | | PL | O | | Prior Temporary Location |  |
| [PV1.44](#ORU_PV1_44) | | 26 | | TS | O | | Admit Date/Time |  |
|  | |  | |  |  | |  |  |
| OBR.1 | | 4 | | SI | O | | Set ID – OBR | Always 1 |
| [OBR.2](#ORU_OBR_2) | | 22 | | EI | C | | Placer Order Number | Placer number from ORM/OMG |
| [OBR.3](#ORU_OBR_3) | | 22 | | EI | C | | Filler Order Number | Sentinel-generated filler number |
| [OBR.4](#ORU_OBR_4) | | 250 | | CE | R | | Universal Service Identifier | Service ID from ORM/OMG |
| OBR.5 | | 2 | | ID | B | | Priority – OBR |  |
| OBR.6 | | 26 | | TS | B | | Requested Date/Time |  |
| [OBR.7](#ORU_OBR_7) | | 26 | | TS | C | | Observation Date/Time # |  |
| OBR.8 | | 26 | | TS | O | | Observation End Date/Time # |  |
| OBR.9 | | 20 | | CQ | O | | Collection Volume \* |  |
| OBR.10 | | 250 | | XCN | O | | Collector Identifier \* |  |
| OBR.11 | | 1 | | ID | O | | Specimen Action Code \* |  |
| OBR.12 | | 250 | | CE | O | | Danger Code |  |
| OBR.13 | | 300 | | ST | O | | Relevant Clinical Information |  |
| OBR.14 | | 26 | | TS | B | | Specimen Received Date/Time \* |  |
| OBR.15 | | 300 | | SPS | B | | Specimen Source |  |
| [OBR.16](#ORU_OBR_16) | | 250 | | XCN | O | | Ordering Provider | Components 1 to 3 returned in ORU. |
| OBR.17 | | 250 | | XTN | O | | Order Callback Phone Number |  |
| OBR.18 | | 60 | | ST | O | | Placer Field 1 |  |
| OBR.19 | | 60 | | ST | O | | Placer Field 2 |  |
| OBR.20 | | 60 | | ST | O | | Filler Field 1 + |  |
| OBR.21 | | 60 | | ST | O | | Filler Field 2 + |  |
| OBR.22 | | 26 | | TS | C | | Results Rpt/Status Chng - Date/Time + |  |
| OBR.23 | | 40 | | MOC | O | | Charge to Practice + |  |
| OBR.24 | | 10 | | ID | O | | Diagnostic Serv Sect ID |  |
| [OBR.25](#ORU_OBR_25) | | 1 | | ID | C | | Result Status + |  |
|  | |  | |  |  | |  |  |
| [OBX.1](#ORU_OBX_1) | | 4 | | SI | O | | Set ID – OBX |  |
| [OBX.2](#ORU_OBX_2) | | 2 | | ID | C | | Value Type | ED for embedded document or RP for reference pointer. |
| [OBX.3](#ORU_OBX_3) | | 250 | | CE | R | | Observation Identifier | ID of procedure |
| OBX.4 | | 20 | | ST | C | | Observation Sub-ID |  |
| [OBX.5](#ORU_OBX_5) | | 99999[[1]](#footnote-1) | | varies | C | | Observation Value | UNC path, Base64 encoded PDF or summary measurement (see example messages above). |
| OBX.6 | | 250 | | CE | O | | Units |  |
| OBX.7 | | 60 | | ST | O | | References Range |  |
| OBX.8 | | 5 | | IS | O | | Abnormal Flags |  |
| OBX.9 | | 5 | | NM | O | | Probability |  |
| OBX.10 | | 2 | | ID | O | | Nature of Abnormal Test |  |
| [OBX.11](#ORU_OBX_11) | | 1 | | ID | R | | Observation Result Status | F for Final (confirmed reports). |

# EXEMPLOS DE MENSAGENS ORU

As mensagens ORU podem incluir ficheiros PDF embebidos e codificados em base64 dentro dos segmentos OBX. A mensagem abaixo apresenta apenas o início e o final do relatório por motivos de espaço.

MSH|^~\&|Sentinel|Cardiology|TestPartner|TestFacility|20060516123228||ORU^R01|0605161232283|P|2.3.1PID||001^^^1^EPI|001^^^Midtown Clinic|

|Bloggs1^Jo^R||19341123|M|||111 E Test Street^^Chicago^IL^61999^USA||(217)463-3220|(217)463-3220||||10000351021|331-28-3900PV1||I|||||00501^Riviera^Nick^^^Dr|85536^Hibbert^Julius^^^Dr| ||||||||||1234

OBR|1|||11524-0^ECGReport^LN|||20060421100823||||||||||||||||||ROBX|1|ED|11524-0^ECG Report^LN||**1.2.826.0.1.921452.1^Application^PDF^Base64^JVBERi0xLjQKJYC…lZgoxNDg0MzINJSVFT0YK**||||||F|

A seguinte mensagem ORU contem a referência a um ficheiro PDF em forma de UNC. The following ORU message contains a reference to a PDF report in the form of a UNC path. Se necessário, o serviço de mensagens HL7 pode ser configurado para apagar o relatório após um determinado período de tempo.

MSH|^~\&|Sentinel|Cardiology|TestPartner|TestFacility|20060516123228||ORU^R01|0605161232283|P|2.3.1PID|||250154\_171805^^^Midtown Clinic|

|Bloggs^Joe^^^||19341123|M|||Moray Place^^Edinburgh^EH3 6BTPV1||I|||||00501^Riviera^Nick^^^Dr|85536^Hibbert^Julius^^^Dr| ||||||||||1234

OBR|1|||11524-0^ECG Report^LN|||20060421100823||||||||||||||||||ROBX|1|RP|||**\\TESTMACHINE\Reports\0608141012051\SIMB0002.EXERSUM.pdf^^AP^PDF**||||||F|

A mensagem seguinte contêm um conjunto de segmentos OBX com cada semento a incluir um sumário de medições. O conjunto exacto de medições depende da modalidade de teste. São mostrados os valores típicos para um exame de MAPA.

MSH|^~\&|Sentinel|Cardiology|TestPartner|TestFacility|20060516123228||ORU^R01|0605161232283|P|2.3.1PID||001^^^1^EPI|001^^^Midtown Clinic|

|Bloggs1^Jo^R||19341123|M|||111 E Test Street^^Chicago^IL^61999^USA||(217)463-3220|(217)463-3220||||10000351021|331-28-3900PV1||I|||||00501^Riviera^Nick^^^Dr|85536^Hibbert^Julius^^^Dr| ||||||||||1234

**OBX|1|NM|Systolic Average Blood Pressure||133|mmHg**

**OBX|2|NM|Min Systolic Blood Pressure||133|mmHg**

**OBX|3|NM|Max Systolic Blood Pressure||133|mmHg**

**OBX|4|NM|Diastolic Average Blood Pressure||86|mmHg**

**OBX|5|NM|Min Diastolic Blood Pressure||86|mmHg**

**OBX|6|NM|Max Diastolic Blood Pressure||86|mmHg**

A mensagem abaixo é uma ORU que é enviada no seguimento de um pedido de exame efectuado e por isso mesmo contem dados que permitem ao HIS relacionar a ORU com a OMG que a originou. The message below is an ORU that is being sent in fulfilment of an order and so contains data that allows the receiving system to correlate this ORU with the order it fulfils.

MSH|^~\&|Sentinel|Cardiology|TestPartner|TestFacility|20060516123228||ORU^R01|0605161232283|P|2.3.1PID|||250154\_171805^^^Midtown Clinic|

|Bloggs^Joe^^^||19341123|M||||Moray Place^^Edinburgh^EH3 6BT

PV1||I|POC1^WARD4^BED100^Facility1||||00501^Riviera^Nick^^^Dr |85536^Hibbert^Julius^^^Dr|||||||||||1234|||||||||||||||||||||||||200605151232

OBR|1|**A226677^PC**|18EFB45B-889E-432e-AC2E-A0F022AFA959|**11524-0^LN** |||20060421100823|||||||||**P030^SMITH^MARTIN^^^DR**|||||||||ROBX|1|ED|**11524-0^LN**||1.2.826.0.1.921452.1^Application^PDF^Base64^JVBERi0xLjQKJYC…lZgoxNDg0MzINJSVFT0YK||||||F

1. [↑](#footnote-ref-1)