Example 1



Order Information

Admin Instructions (Edited Today at 0937):
Show Changes
Rates should be calculated based upon ideal body weight (IBW) unless actual body weight is less than IBW, then actual body weight should be used.

Rates are calculated based on Ideal Body Weight (IBW)
Infuse at 0.5 mL/kg/hr = 35 mL/hr for 30 minutes, then if no reaction
Increase rate to 1 mL/kg/hr = 70 mL/hr for 30 minutes, then if no reaction
Increase rate to 2 mL/kg/hr = 140 mL/hr for 30 minutes, then if no reaction
Increase rate to 3 mL/kg/hr = 211 mL/hr for 30 minutes, then if no reaction
Increase rate to 4 mL/kg/hr = 281 mL/hr for 30 minutes, then if no reaction
Increase rate to 5 mL/kg/hr = 352 mL/hr (maximum infusion rate) for remainder of infusion

Consider longer infusion time for patients at risk for or with pre-existing renal disease.
Allow to reach room temperature prior to administration. Do NOT shake.
Refrigerate.

Priority: Routine
Must Program as Primary for Alaris (Secondary Not Allowed)
Product: immune globulin (human) 10% Soln
Frequency: Once
Route: intravenous
Ordered Dose: 0.5 g/kg × 70.5 kg (Ideal)
Ordered Admin Dose: 35 g = 350 mL
Concentration: 0.1 g/mL
Ordered Infusion Rate: 5-650 mL/hr
Administration Window: 60 minutes from the due time
Order Start Time: Today 02/22/23 at 1000
Administrations Remaining: 0 (+1 in progress)
Expected Dispense Volume: 350 mL

Step 1: VTBI = 17.5 mL
Step 2: VTBI = 35 mL
Step 3: VTBI = 70 mL
Step 4: VTBI = 105.5 mL
Step 5: VTBI = 140.5 mL
total infused at this point = 368.5 mL

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MSH|^~\&|IOPVENDOR^1234560000000001^EUI-64|IOPVENDOR|IOCVENDOR^6543210000000001^EUI-64|IOCVENDOR|20080101123456-0600||RGV^O15^RGV_O15|1|P|2.6|||AL|A
L||ASCII|EN^English^ISO659||IHE_PCD_RGV_O15^IHE PCD^1.3.6.1.4.1.19376.1.6.1.3.1^ISO
PID|||98765^^^IHE^PI||Doe^John^^^^^L||19660101000000-0600|M
ORC|RE|12345|||||||||||||||||N0001
RXG|1|||1234^Immune
Globulin^Rx|17.5||263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||35|265624^mL/h^UCUM^MDC_DIM_MILLI_L_PER_HR^MDC|35|263890^g^UCUM^MDC_DIM_MILLI_G^MDC||
|||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM -- RXG-32 Dispense Amount and  RXG-33 is Dispense Units in
v2.8, CP to TF
RXR|^IV^HL70162||^IVP^HL70164|^IV^HL70165  -- HL7 requires an RXR in each Give section of an RGV message.
https://hl7-definition.caristix.com/v2/HL7v2.6/TriggerEvents/RGV_O15
OBX|1||69986^MDC_DEV_PUMP_INFUS_VMD^MDC|||||||F|||||||A0001^^6543210000000001^EUI-64  -- TF says to include 'as required', CP to TF to only include
in step 1
OBX|2|NM|68063^MDC_ATTR_PT_WEIGHT^MDC||70.5|263875^MDC_DIM_KILO_G^MDC|||||F  -- TF says to include 'as required', CP to TF to only include in step 1
OBX|3||158033^MDC_INFUS_TOTAL_NUM_STEPS^MDC||6||||||F  -- TF requires this in each step, CP to TF to only include in step 1.
OBX|4||158037^MDC_INFUS_ORDER_STEP_TYPE|||continuous||||  -- TF requires this in each step, - each step needs its type.
RXG|2|||1234^Immune
Globulin^Rx|35||263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||70|265624^mL/h^UCUM^MDC_DIM_MILLI_L_PER_HR^MDC|35|263890^g^UCUM^MDC_DIM_MILLI_G^MDC||||
|350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM
RXR|^IV^HL70162||^IVP^HL70164|^IV^HL70165
OBX|5||158037^MDC_INFUS_ORDER_STEP_TYPE|||continuous||||
RXG|3|||1234^Immune
Globulin^Rx|70||263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||140|265624^mL/h^UCUM^MDC_DIM_MILLI_L_PER_HR^MDC|35|263890^g^UCUM^MDC_DIM_MILLI_G^MDC|||
||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM
RXR|^IV^HL70162||^IVP^HL70164|^IV^HL70165
OBX|6||158037^MDC_INFUS_ORDER_STEP_TYPE|||continuous||||
RXG|4|||1234^Immune
Globulin^Rx|105.5||263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||211|265624^mL/h^UCUM^MDC_DIM_MILLI_L_PER_HR^MDC|35|263890^g^UCUM^MDC_DIM_MILLI_G^MDC
|||||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM
RXR|^IV^HL70162||^IVP^HL70164|^IV^HL70165
OBX|7||158037^MDC_INFUS_ORDER_STEP_TYPE|||continuous||||
RXG|5|||1234^Immune
Globulin^Rx|140.5||263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||281|265624^mL/h^UCUM^MDC_DIM_MILLI_L_PER_HR^MDC|35|263890^g^UCUM^MDC_DIM_MILLI_G^MDC
|||||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM
RXR|^IV^HL70162||^IVP^HL70164|^IV^HL70165
OBX|8||158037^MDC_INFUS_ORDER_STEP_TYPE|||continuous||||
RXG|6|||1234^Immune
Globulin^Rx|???||263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||352|265624^mL/h^UCUM^MDC_DIM_MILLI_L_PER_HR^MDC|35|263890^g^UCUM^MDC_DIM_MILLI_G^MDC||
|||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM
RXR|^IV^HL70162||^IVP^HL70164|^IV^HL70165
OBX|9||158037^MDC_INFUS_ORDER_STEP_TYPE|||continuous||||
```

Not enough fluid in this example to complete 5 steps.

Example 2

Step 1: VTBI = 150 mL @75mL/h

Step 2: Delay 30 min VTBI = 0 mL

Step 3: VTBI = 200 mL @100mL/h

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MSH|^~\&|IOPVENDOR^1234560000000001^EUI-64|IOPVENDOR|IOCVENDOR^6543210000000001^EUI-64|IOCVENDOR|20080101123456-0600||RGV^O15^RGV_O15|1|P|2.6|||AL|A
L||ASCII|EN^English^ISO659||IHE_PCD_RGV_O15^IHE PCD^1.3.6.1.4.1.19376.1.6.1.3.1^ISO
PID|||98765^^^IHE^PI||Doe^John^^^^^L||19660101000000-0600|M
ORC|RE|12345|||||||||||||||||N0001
RXG|1|||1234^Immune
Globulin^Rx|150||263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||||75|265624^mL/h^UCUM^MDC_DIM_MILLI_L_PER_HR^MDC|35|263890^g^UCUM^MDC_DIM_MILLI_G^MDC|||
||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM
RXR|^IV^HL70162||^IVP^HL70164|^IV^HL70165  -- HL7 requires an RXR in each Give section of an RGV message.
https://hl7-definition.caristix.com/v2/HL7v2.6/TriggerEvents/RGV_O15
OBX|1||69986^MDC_DEV_PUMP_INFUS_VMD^MDC|||||||||F|||||||A0001^^6543210000000001^EUI-64  -- TF says to include 'as required', CP to TF to only include
in step 1
OBX|2|NM|68063^MDC_ATTR_PT_WEIGHT^MDC||70.5|263875^MDC_DIM_KILO_G^MDC|||||F  -- TF says to include 'as required', CP to TF to only include in step 1
OBX|3||158033^MDC_INFUS_TOTAL_NUM_STEPS^MDC||3||||||F  -- TF requires this in each step, CP to TF to only include in step 1.
OBX|4||158037^MDC_INFUS_ORDER_STEP_TYPE|||continuous||||  -- TF requires this in each step, - each step needs its type.
RXG|2|||1234^Immune
Globulin^Rx|0||263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||||0|265624^mL/h^UCUM^MDC_DIM_MILLI_L_PER_HR^MDC|35|263890^g^UCUM^MDC_DIM_MILLI_G^MDC|||||3
50|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM
TQ1|1|||||||||||||30^264352&MDC_DIM_MIN&MDC
RXR|^IV^HL70162||^IVP^HL70164|^IV^HL70165
OBX|5||158037^MDC_INFUS_ORDER_STEP_TYPE|||delay||||
RXG|3|||1234^Immune
Globulin^Rx|200||263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||||100|265624^mL/h^UCUM^MDC_DIM_MILLI_L_PER_HR^MDC|35|263890^g^UCUM^MDC_DIM_MILLI_G^MDC||
|||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM|||||||||350|263762^MDC_DIM_MILLI_L^MDC^mL^mL^UCUM
RXR|^IV^HL70162||^IVP^HL70164|^IV^HL70165
OBX|6||158037^MDC_INFUS_ORDER_STEP_TYPE|||continuous||||
```

Can we only have a single RXR?
MSH
PID
[PV1]
ORC
{
RXG
[TQ1]
RXR
OBX (multiple)
}

In HL7 v2.8 RXG-32 Dispense Amount could be used for the total volume of for all steps? RXG-33 is Dispense Units

Current TF states:
Step number in RXG-1 (values are 1...n)
An OBX segment to indicate the type of the current step
OBX-3 = MDCX_INFUS_ORDER_STEP_TYPE
enumerations are "loading dose" or "continuous", add “delay”
“loading dose” is optional and supported in step 1 only
An OBX segment to indicate the total number of steps in the program
OBX-3 = MDCX_INFUS_TOTAL_NUM_STEPS
Additional OBX segments containing the pump ID or patient parameters (e.g. height, weight, BSA) as required