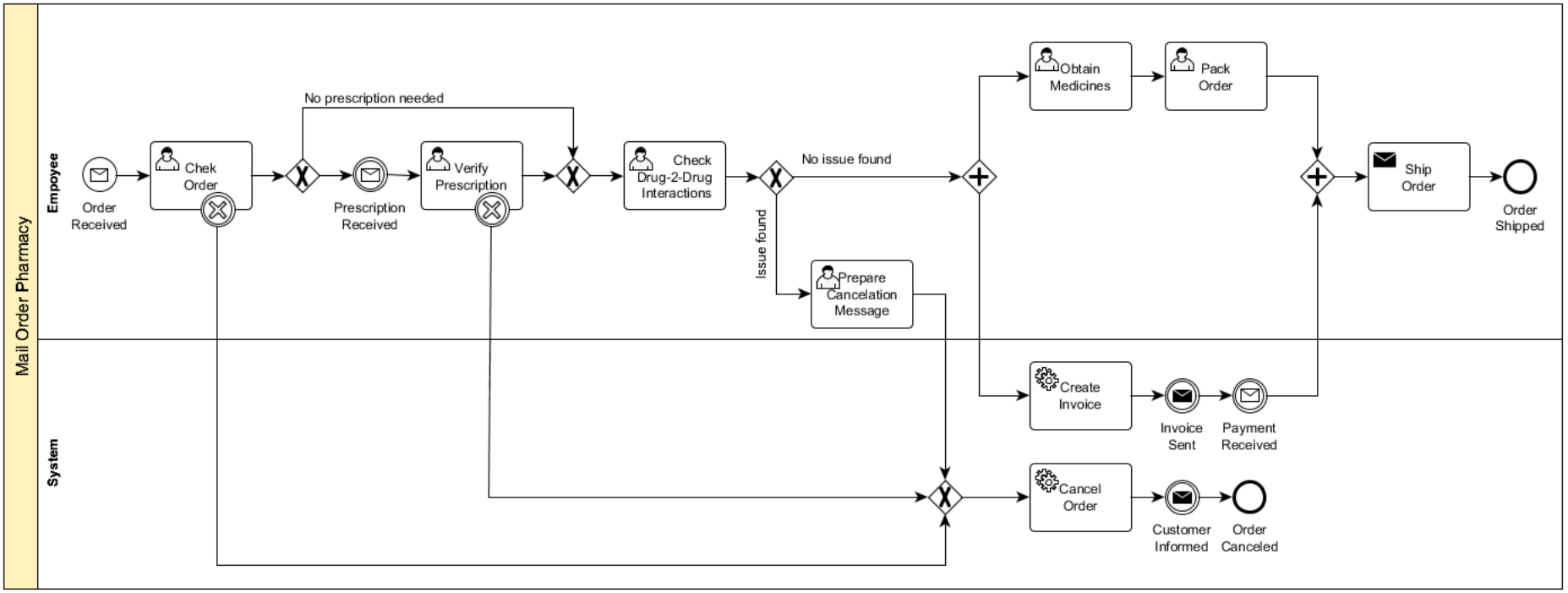
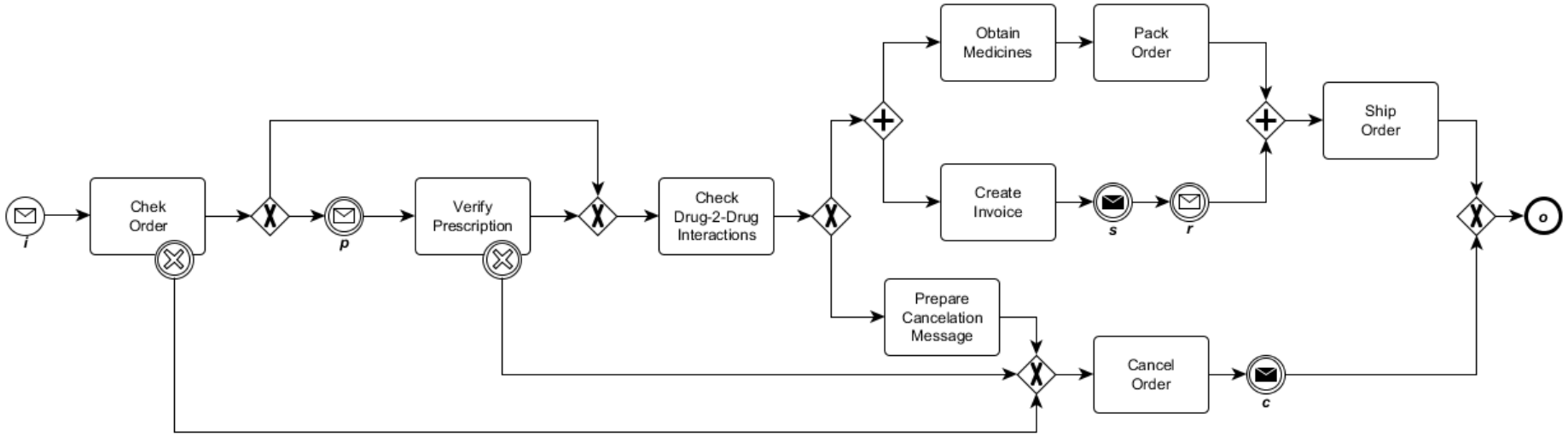
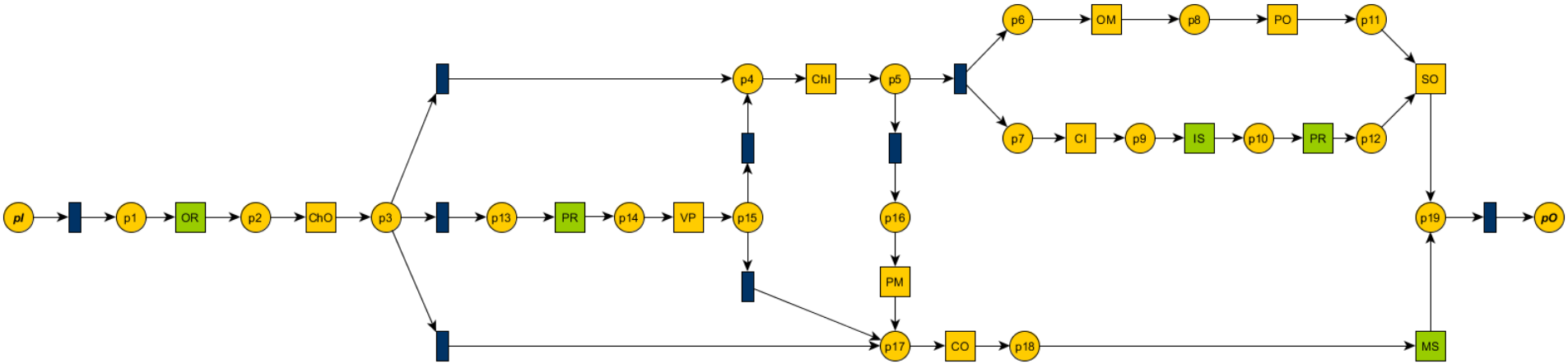
Model Task#2



Equivalent Structural Sound Model Task#2



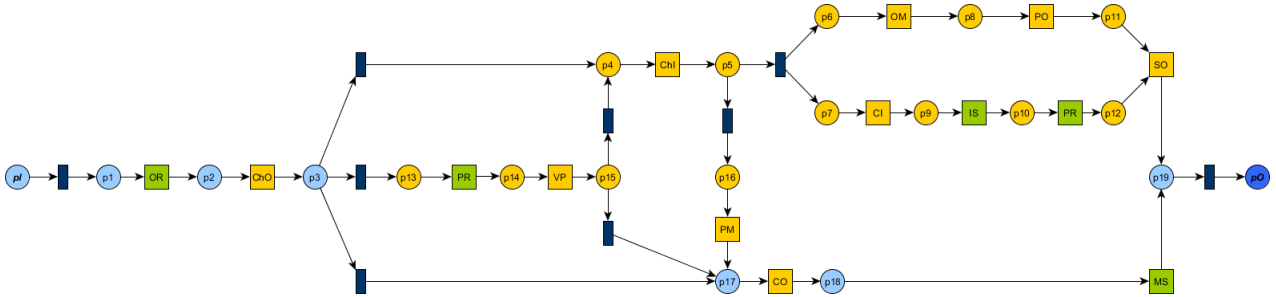
Petri net model Task#2



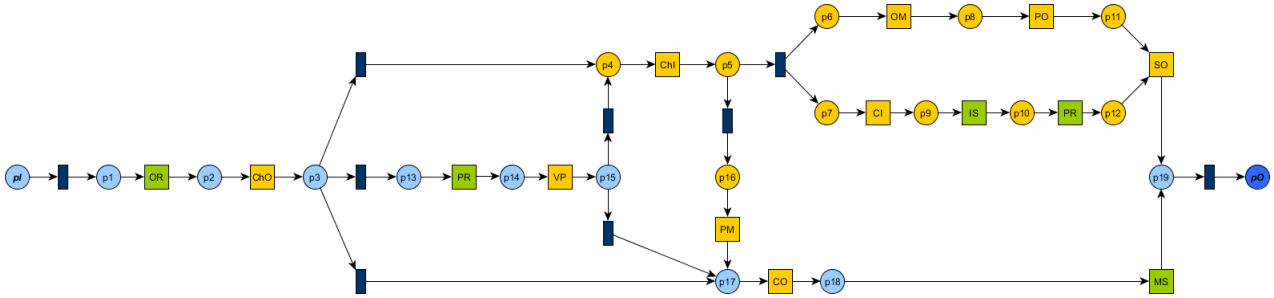
ChI: Check Drug-2-Drug Interaction
ChO: Check Order
CI: Create Invoice
CO: Cancel Order
IS: Invoice Sent
MS: Message Sent
OM: Obtain Medicines
OR: Order Received
PM: Prepare Cancelation Message
PO: Pack Order
PR: Payment Received
PR: Prescription Received
SO: Ship Order

Traces

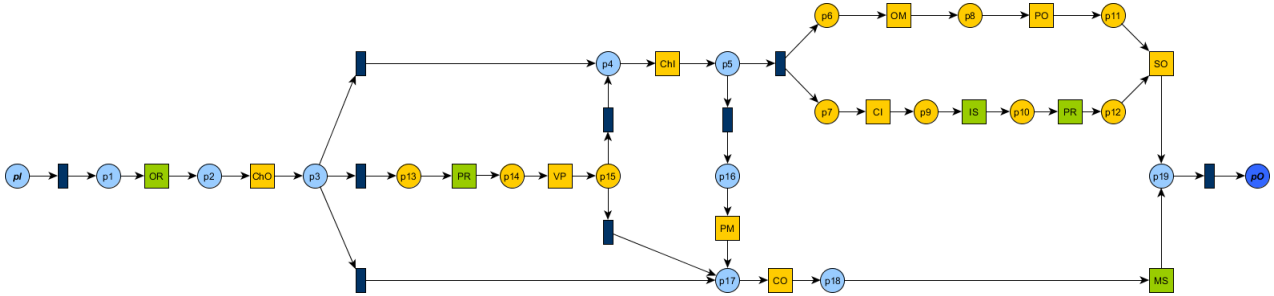
i-Check Order-Cancel Order-***c***-***o***



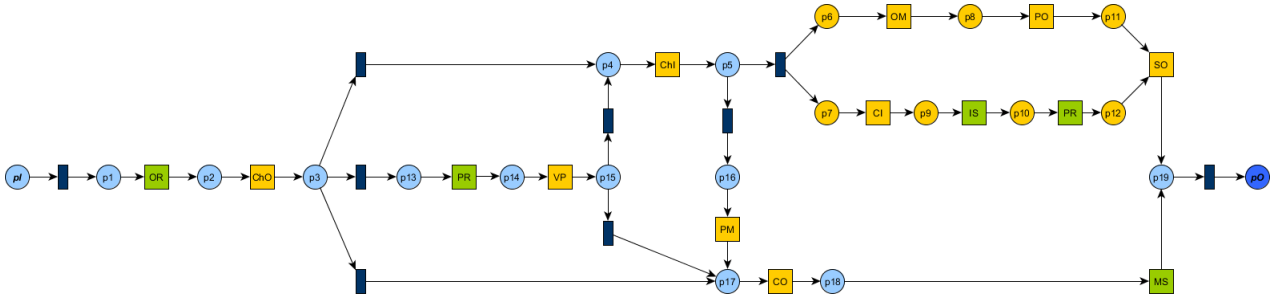
i*-Check Order-*p*-Verify Perscription-Cancel Order-*c*-*o



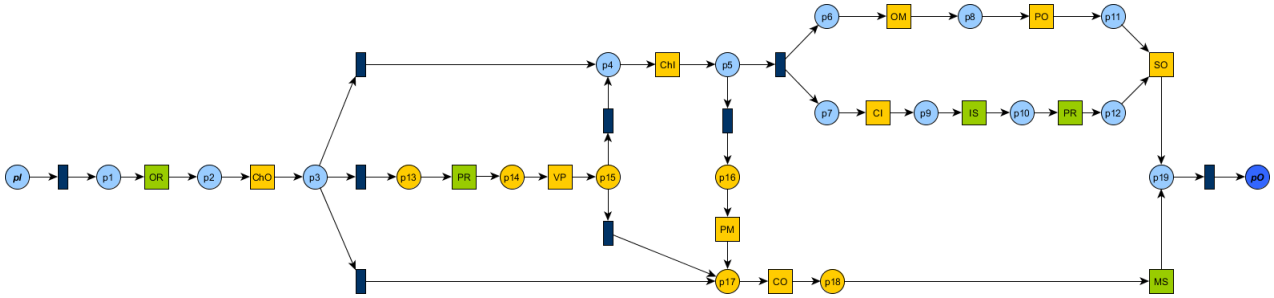
i*-Check Order-Check Drug2Drug Interactions-Prepare Cancelation Message-Cancel Order-*c*-*o



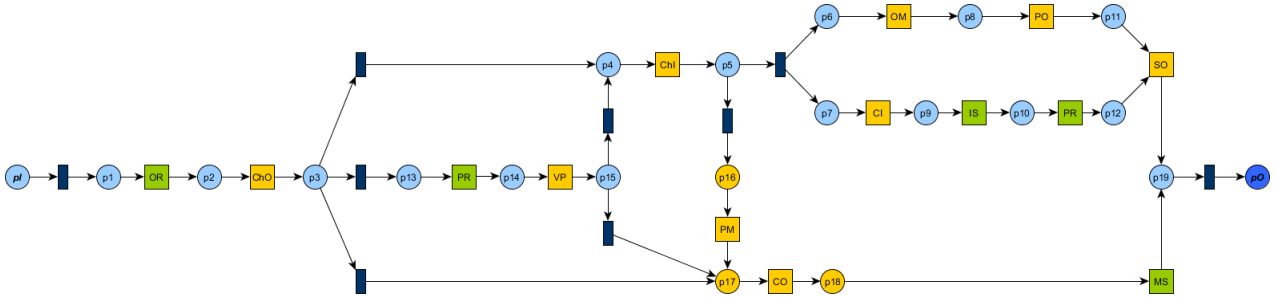
i*-Check Order-*p*-Verify Perscription-Check Drug2Drug Interactions-PrepareCancelation Message-Cancel Order-*c*-*o



i-Check Order-Check Drug2Drug Interactions-Obtain Medicines-Pack Order-Create Invoice-***s***-***r***-Ship Order-***o***
i-Check Order-Check Drug2Drug Interactions-Obtain Medicines-Create Invoice-Pack Order-***s***-***r*** -Ship Order-***o***
i-Check Order-Check Drug2Drug Interactions-Obtain Medicines-Create Invoice-***s***-Pack Order-***r***-Ship Order-***o***
i-Check Order-Check Drug2Drug Interactions-Obtain Medicines-Create Invoice-***s***-***r***-Pack Order-Ship Order-***o***
i-Check Order-Check Drug2Drug Interactions-Create Invoice-Obtain Medicines-Pack Order-***s***-***r***-Ship Order-***o***
i-Check Order-Check Drug2Drug Interactions-Create Invoice-Obtain Medicines-***s***-Pack Order-***r***-Ship Order-***o***
i-Check Order-Check Drug2Drug Interactions-Create Invoice-Obtain Medicines-***s***-***r***-Pack Order-Ship Order-***o***
i-Check Order-Check Drug2Drug Interactions-Create Invoice-***s***-Obtain Medicines-Pack Order-***r***-Ship Order-***o***
i-Check Order-Check Drug2Drug Interactions-Create Invoice-***s***-Obtain Medicines-***r***-Pack Order-Ship Order-***o***
i-Check Order-Check Drug2Drug Interactions-Create Invoice-***s***-***r***-Obtain Medicines-Pack Order-Ship Order-***o***



i-Check Order-***p***-Verify Perscription-Check Drug2Drug Interactions-Obtain Medicines-Pack Order-Create Invoice-***s***-***r***-Ship Order-***o***
i-Check Order-***p***-Verify Perscription-Check Drug2Drug Interactions-Obtain Medicines-Create Invoice-Pack Order-***s***-***r*** -Ship Order-***o***
i-Check Order-***p***-Verify Perscription-Check Drug2Drug Interactions-Obtain Medicines-Create Invoice-***s***-Pack Order-***r***-Ship Order-***o***
i-Check Order-***p***-Verify Perscription-Check Drug2Drug Interactions-Obtain Medicines-Create Invoice-***s***-***r***-Pack Order-Ship Order-***o***
i-Check Order-***p***-Verify Perscription-Check Drug2Drug Interactions-Create Invoice-Obtain Medicines-Pack Order-***s***-***r***-Ship Order-***o***
i-Check Order-***p***-Verify Perscription-Check Drug2Drug Interactions-Create Invoice-Obtain Medicines-***s***-Pack Order-***r***-Ship Order-***o***
i-Check Order-***p***-Verify Perscription-Check Drug2Drug Interactions-Create Invoice-Obtain Medicines-***s***-***r***-Pack Order-Ship Order-***o***
i-Check Order-***p***-Verify Perscription-Check Drug2Drug Interactions-Create Invoice-***s***-Obtain Medicines-Pack Order-***r***-Ship Order-***o***
i-Check Order-***p***-Verify Perscription-Check Drug2Drug Interactions-Create Invoice-***s***-Obtain Medicines-***r***-Pack Order-Ship Order-***o***
i-Check Order-***p***-Verify Perscription-Check Drug2Drug Interactions-Create Invoice-***s***-***r***-Obtain Medicines-Pack Order-Ship Order-***o***



The model is **sound**:

- There are no deadlock situations; all traces run from ***i***- to –***o***
- There are no remaining activiyeis after reaching –***o***; no livelock situations.
- All activities are on at least one trace; no dead activities.