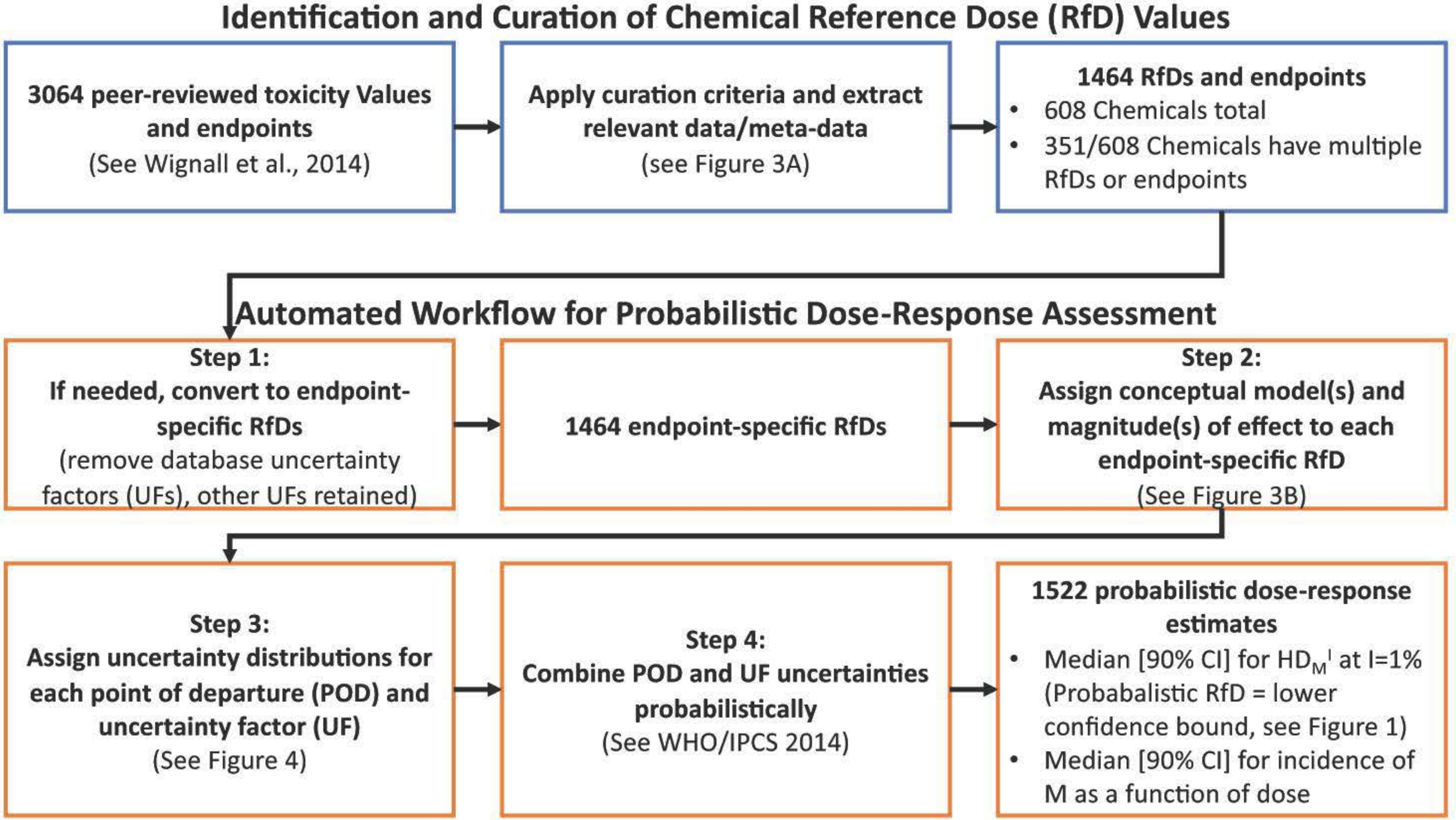
Identification and Curation of Chemical Reference Dose (RfD) Values
3064 peer-reviewed toxicity Values and endpoints
(See Wignall et al., 2014)
Apply curation criteria and extract relevant data/meta-data
(see Figure 3A)
1464 RfDs and endpoints
• 608 Chemicals total
• 351/608 Chemicals have multiple RfDs or endpoints
Automated Workflow for Probabilistic Dose-Response Assessment
Step 1:
If needed, convert to endpoint-specific RfDs
(remove database uncertainty factors (UFs), other UFs retained)
1464 endpoint-specific RfDs
Step 2:
Assign conceptual model(s) and magnitude(s) of effect to each endpoint-specific RfD
(See Figure 3B)
Step 3:
Assign uncertainty distributions for each point of departure (POD) and uncertainty factor (UF)
(See Figure 4)
Step 4:
Combine POD and UF uncertainties probabilistically
(See WHO/IPCS 2014)
1522 probabilistic dose-response estimates
• Median [90% CI] for HD_M^I at I=1% (Probabalistic RfD = lower confidence bound, see Figure 1)
• Median [90% CI] for incidence of M as a function of dose