Consensus nomenclature rules* for radiopharmaceutical chemistry

All radiopharmaceuticals must be represented by internationally recognised standard nomenclature:

1. The radionuclide must precede the compound or complex and be placed in square brackets. The radionuclide is represented by the symbol of the element, together with its mass number as a superscript in front, within square brackets e.g. [^{18}F], [^{75}Se], [^{99m}Tc].
2. Immediately following the radionuclide the compound or complex that makes up the radiopharmaceutical must be either the formula of the compound or the name of the compound e.g. $NaTcO_4$ or Pertechnetate.
3. Examples of acceptable nomenclature for the radiopharmaceutical from the example above would be either:
    a. [^{99m}Tc]$NaTcO_4$ or
    b. [^{99m}Tc]Pertechnetate

    Further examples are given in table 1 below.

Table 1. Examples of acceptable nomenclature

No.	Radionuclide	Chemical Name	Correct Nomenclature	Notes
1	^{223}Ra	Radium Chloride	[^{223}Ra]$RaCl_2$	Compounds containing the radioactive element do not require a hyphen.
2	^{18}F	FDG	[^{18}F]FDG	
3	^{99m}Tc	Pertechnetate	[^{99m}Tc]$NaTcO_4$	
4	^{123}I	Ioflupane	[^{123}I]Ioflupane	
5	^{99m}Tc	DTPA	[^{99m}Tc]Tc-DTPA	Organic, inorganic and organometallic compounds labelled with metallic radionuclides require a hyphen between the element symbol and the chelator/complex/compound
6	^{99m}Tc	MAG 3	[^{99m}Tc]Tc-MAG3	
7	^{99m}Tc	MDP	[^{99m}Tc]Tc-MDP	
8	^{99m}Tc	MIBI	[^{99m}Tc]Tc-MIBI	
9	^{89}Zr	DFO trastuzumab	[^{89}Zr]Zr-DFO-trastuzumab.	An additional hyphen is needed between the chelator and its conjugated molecule such as a peptide or antibody
10	^{68}Ga	DOTATATE	[^{68}Ga]Ga-DOTA-TATE	

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