Supplemental Table 1: Summary of the Survey Data in Traditional Units

The values are reported in traditional values (mCi or mCi/kg). For each parameter, the minimum and maximum reported values are listed as well as the median and mean values. For example, the activity/mass (mCi/kg) for ^{99m}Tc-DMSA renal scans (2nd row) was reported for 12 of the 13 institutions. The lowest or minimum value reported by one institution was 0.033 mCi/kg, and the maximum value reported was 0.075 mCi/kg. The median and mean of the reported values was 0.050 mCi/kg and 0.052 mCi/kg, respectively.

Radiopharmaceutical	Parameter	Number of Respondents	Minimum	Maximum	Median	Mean
^{99m}Tc-dimercaptosuccinic acid (DMSA)	Activity/mass, mCi/kg	12	0.033	0.075	0.050	0.052
	Minimum activity, mCi	13	0.150	1.350	0.500	0.577
	Maximum activity, mCi	11	2.000	5.000	3.000	3.364
^{99m}Tc-mercaptoacetyltriglycine (MAG3)	Activity/mass, mCi/kg	10	0.030	0.150	0.100	0.096
	Minimum activity, mCi	12	0.490	4.000	1.000	1.291
	Maximum activity, mCi	12	1.500	10.000	4.000	4.875
^{99m}Tc-methylene diphosphate (MDP)	Activity/mass, mCi/kg	11	0.200	0.250	0.250	0.242
	Minimum activity, mCi	12	1.000	3.000	1.500	1.767
	Maximum activity, mCi	11	15.000	25.000	20.000	20.182
^{99m}Tc-diisopropyl iminodiacetic acid (DISIDA)	Activity/mass, mCi/kg	10	0.020	0.075	0.050	0.052
	Minimum activity, mCi	13	0.400	2.000	1.000	0.862
	Maximum activity, mCi	12	1.400	7.000	5.000	4.533
^{123}I-metaiodobenzylguanidine (MIBG)	Activity/mass, mCi/kg	12	0.120	0.200	0.140	0.150
	Minimum activity, mCi	12	0.100	3.000	1.000	1.390
	Maximum activity, mCi	13	8.000	10.000	10.000	9.731
^{99m}Tc-$NaTcO_4$ (for Meckel's diverticulum)	Activity/mass, mCi/kg	11	0.044	0.100	0.050	0.069
	Minimum activity, mCi	13	0.200	3.000	0.500	0.919
	Maximum activity, mCi	11	3.000	20.000	10.000	9.091
^{123}I (NaI) (for the thyroid)	Activity/mass, mCi/kg	5	0.002	0.006	0.003	0.004
	Minimum activity, mCi	10	0.025	0.300	0.075	0.089
	Maximum activity, mCi	11	0.100	0.500	0.220	0.263
^{99m}Tc-ethylcysteinate dimer (ECD) or ^{99m}Tc-exametazime (HMPAO)	Activity/mass, mCi/kg	9	0.280	0.321	0.300	0.299
	Minimum activity, mCi	12	1.200	10.000	5.000	4.350
	Maximum activity, mCi	12	15.000	30.000	20.000	20.667
^{99m}Tc-sestamibi (MIBI)	Activity/mass, mCi/kg	9	0.210	0.400	0.300	0.316
	Minimum activity, mCi	9	1.000	14.000	4.000	5.333
	Maximum activity, mCi	10	10.000	30.000	20.000	19.700
^{99m}Tc-macroaggregated albumin (MAA)	Activity/mass, mCi/kg	11	0.030	0.077	0.050	0.051
	Minimum activity, mCi	12	0.200	1.000	0.400	0.458
	Maximum activity, mCi	10	2.000	5.000	3.500	3.600
^{99m}Tc-Ultratag (Mallinckrodt) (for gastrointestinal bleeding)	Activity/mass, mCi/kg	10	0.140	0.300	0.200	0.217
	Minimum activity, mCi	12	1.000	4.000	2.000	2.042
	Maximum activity, mCi	12	10.000	25.000	16.500	16.083
^{99m}Tc-denatured RBCs (for the spleen)	Activity/mass, mCi/kg	6	0.030	0.280	0.125	0.135
	Minimum activity, mCi	7	0.500	2.000	1.000	1.143
	Maximum activity, mCi	7	2.000	20.000	3.000	7.571
^{99m}Tc-Ultratag (Mallinckrodt) (for multiple gated acquisitions)	Activity/mass, mCi/kg	7	0.200	0.400	0.290	0.284
	Minimum activity, mCi	10	1.000	7.000	2.500	3.120
	Maximum activity, mCi	10	10.000	25.000	20.000	18.800
^{67}Ga (for inflammatory disease)	Activity/mass, mCi/kg	4	0.040	0.070	0.048	0.051
	Minimum activity, mCi	4	0.250	2.000	0.770	0.948
	Maximum activity, mCi	5	3.000	6.000	4.000	4.200
^{67}Ga (for tumor imaging)	Activity/mass, mCi/kg	5	0.050	0.150	0.110	0.106
	Minimum activity, mCi	5	0.250	3.000	1.000	1.450
	Maximum activity, mCi	7	6.000	10.000	8.000	7.714
^{18}F-fluorodeoxyglucose (FDG)	Activity/mass, mCi/kg	12	0.120	0.150	0.140	0.140
	Minimum activity, mCi	12	0.500	2.000	1.000	1.125
	Maximum activity, mCi	12	10.000	15.000	11.000	11.500

Supplemental Table 2: Mean Differences and Variation between Study Data from 2013 and 2007 in Traditional Units

Radiopharmaceutical	Parameter	Mean Difference 2013-2007 Minimum	Mean Difference 2013-2007 Maximum	Mean Difference 2013-2007 Mean	95% Confidence Interval of the Mean in 2007	95% Confidence Interval of the Mean in 2013
^{99m}Tc-dimercaptosuccinic acid (DMSA)	Activity/mass, mCi/kg	-0.050	0.020	-0.013	0.041, 0.086	0.044, 0.059
	Minimum activity, mCi	-0.650	0.500	-0.150	0.364, 1.064	0.371, 0.783
	Maximum activity, mCi	-2.000	0.000	-0.556	3.167, 5.015	2.611, 4.116
^{99m}Tc-mercaptoacetyltriglycine (MAG3)	Activity/mass, mCi/kg	-0.180	0.080	-0.056	0.079, 0.228	0.064, 0.128
	Minimum activity, mCi	-2.000	0.500	-0.168	0.762, 2.155	0.708, 1.873
	Maximum activity, mCi	-6.000	0.000	-3.042	5.836,9.241	3.182, 6.568
^{99m}Tc-methylene diphosphate (MDP)	Activity/mass, mCi/kg	-0.110	0.000	-0.050	0.257, 0.331	0.229, 0.254
	Minimum activity, mCi	-4.000	0.000	-1.108	1.780, 3.621	1.222, 2.311
	Maximum activity, mCi	-10.000	2.000	-1.909	20.465, 23.842	18.019, 22.345
^{99m}Tc-diisopropyl iminodiacetic acid (DISIDA)	Activity/mass, mCi/kg	-0.050	-0.016	-0.033	0.062, 0.099	0.041, 0.062
	Minimum activity, mCi	-1.500	0.000	-0.115	0.669, 1.287	0.607, 1.118
	Maximum activity, mCi	-5.000	2.000	-0.925	4.095, 6.751	3.628, 5.439
^{123}I-metaiodobenzylguanidine (MIBG)	Activity/mass, mCi/kg	-0.060	0.050	-0.003	0.133, 0.173	0.134, 0.166
	Minimum activity, mCi	-2.300	0.000	-0.618	1.000, 3.091	0.920, 1.863
	Maximum activity, mCi	0.000	0.000	0.000	9.329, 10.133	9.329, 10.133
^{99m}Tc-$NaTcO_4$ (for Meckel's diverticulum)	Activity/mass, mCi/kg	-0.110	0.000	-0.050	0.082, 0.159	0.053, 0.086
	Minimum activity, mCi	-2.000	2.000	-0.503	0.623, 2.041	0.338, 1.501
	Maximum activity, mCi	-5.000	0.000	-1.800	7.111, 11.723	5.739, 12.443
^{123}I (NaI) (for the thyroid)	Activity/mass, mCi/kg	0.000	0.000	0.000	0.000, 0.006	0.001, 0.006
	Minimum activity, mCi	-0.160	0.100	-0.023	0.038, 0.165	0.028, 0.150
	Maximum activity, mCi	-0.270	0.300	0.023	0.159, 0.352	0.163, 0.363
^{99m}Tc-ethylcysteinate dimer (ECD) or ^{99m}Tc-exametazime (HMPAO)	Activity/mass, mCi/kg	0.000	0.250	0.060	0.177, 0.407	0.291, 0.307
	Minimum activity, mCi	-5.000	4.500	-0.100	2.715, 6.739	2.899, 5.801
	Maximum activity, mCi	-10.000	15.000	-1.364	17.698, 26.135	18.331, 23.002
^{99m}Tc-sestamibi (MIBI)	Activity/mass, mCi/kg	-0.200	0.218	0.012	0.227, 0.420	0.269, 0.363
	Minimum activity, mCi	-9.000	1.000	-0.875	2.702, 8.698	2.072, 8.595
	Maximum activity, mCi	-15.000	12.000	-1.500	18.071, 24.762	15.063, 24.337
^{99m}Tc-macroaggregated albumin (MAA)	Activity/mass, mCi/kg	-0.055	0.020	-0.011	0.032, 0.093	0.040, 0.062
	Minimum activity, mCi	-0.600	0.100	-0.120	0.401, 0.756	0.339, 0.578
	Maximum activity, mCi	-2.000	0.000	-0.320	3.264, 4.520	2.909, 4.291
^{99m}Tc-Ultratag (Mallinckrodt) (for gastrointestinal bleeding)	Activity/mass, mCi/kg	-0.050	0.100	0.008	0.133, 0.295	0.177, 0.258
	Minimum activity, mCi	-2.000	2.000	-0.167	1.324, 2.898	1.492, 2.591
	Maximum activity, mCi	-10.000	5.000	-1.500	12.929, 20.344	12.794, 19.373
^{99m}Tc-denatured RBCs (for the spleen)	Activity/mass, mCi/kg	-0.040	0.000	-0.020	-0.067, 0.187	0.025, 0.245
	Minimum activity, mCi	0.000	1.000	0.333	0.311, 1.856	0.563, 1.723
	Maximum activity, mCi	-3.000	16.000	3.250	-1.540, 13.207	0.272, 14.871
^{99m}Tc-Ultratag (Mallinckrodt) (for multiple gated acquisitions)	Activity/mass, mCi/kg	0.000	0.000	0.000	0.159, 0.365	0.224, 0.344
	Minimum activity, mCi	-3.000	0.500	-0.450	1.719, 5.421	1.728, 4.512
	Maximum activity, mCi	-10.000	5.000	-1.000	17.655, 21.981	15.983, 21.617
^{67}Ga (for inflammatory disease)	Activity/mass, mCi/kg	-0.010	0.000	-0.003	0.036, 0.066	0.028, 0.074
	Minimum activity, mCi	-0.250	0.000	-0.125	-0.294, 2.169	-0.272, 2.167
	Maximum activity, mCi	-2.000	3.000	0.250	3.135, 5.198	2.581, 5.819
^{67}Ga (for tumor imaging)	Activity/mass, mCi/kg	-0.002	0.000	-0.001	0.075, 0.136	0.054, 0.158
	Minimum activity, mCi	-0.750	2.000	0.250	0.520, 1.700	0.126, 2.774
	Maximum activity, mCi	-2.000	2.000	-0.571	7.346, 9.571	6.438, 8.991
^{18}F-fluorodeoxyglucose (FDG)	Activity/mass, mCi/kg	-0.050	0.000	-0.013	0.129, 0.178	0.135, 0.145
	Minimum activity, mCi	0.000	0.000	0.000	0.607, 1.893	0.850, 1.400
	Maximum activity, mCi	-5.000	5.000	0.000	9.957, 13.293	10.304, 12.696

2013 Follow-up Survey of Administered Activities at Pediatric Institutions in North America

We are conducting a follow-up survey in regards to the levels of administered activity being used for a variety of pediatric nuclear medicine procedures. In addition to indicating if the published guidelines led to the alteration of any of your imaging protocols, we also ask you to please update the following table for the procedures that you routinely perform. Note that there is a column for both activity/body mass and activity/body surface area. Depending on whether you determine your pediatric administered activities using body mass or body surface area, please place your values in the appropriate column, but not both. If you use another scheme to scale the activity for smaller patients, please explain. Once the survey has been completed, we will assemble a table of the values with the specific sites anonymized. We may choose to publish this follow-up. All contributing institutions will appropriately be acknowledged. Completed surveys can be emailed to Fred Fahey (frederic.fahey@childrens.harvard.edu) or faxed to 617-730-0022. If you have any questions regarding the survey, please contact Fred Fahey, D.Sc. (617-355-2809).

Institution Name _____ Date Form completed _____

Name of Person Competing Form _____ Email address _____

Phone Number _____ Physician's Name _____

Are you familiar with the 2010 Pediatric Radiopharmaceutical Administered Doses North American Consensus Guidelines?
Yes____ No____

Are you familiar with the Image Gently campaign and the "Go with the Guidelines" poster?
Yes____ No____

As a result of these guidelines, did you alter any of your image protocols with respect to the amount of administered activity?
Yes____ No____ If Yes, which procedures?_____

Procedure	Activity/body mass (mCi/kg)	Activity/body surface area (mCi/m^2)	MIN Activity (mCi)	MAX Activity (mCi)
^{99m}Tc DMSA				
^{99m}Tc MAG3				
^{99m}Tc MDP				
^{99m}Tc MIBI				
^{99m}Tc MAA				
^{99m}Tc ECD or HmPAO				
^{99m}Tc HIDA				
^{99m}Tc RBC (Bleeding)				
^{99m}Tc RBC (Spleen)				
^{99m}Tc RBC (MUGA RVG)				
^{99m}Tc O_4 (Meckel's)				
^{123}I MIBG				
^{123}I (thyroid)				
^{67}Ga				
^{18}F FDG				

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Supplemental Figure 1. 2013 follow-up survey.