## **Supplemental Table 1.**

## **Development of Educational Content Including Webinars**

Name	Type of educational content	web link (if any)	brief description	Free (Y/N)	Cost (Euros/US Dollars)	Advantages	Limitations
IAEA Radiation Protection in Paediatric Radiology	IAEA book (publication)	http://www- pub.iaea.org/books/IAEABooks/8727/Radiatio n-Protection-in-Paediatric-Radiology	Recent 2012 IAEA publication on radiation protection in Paediatric Radiology.	Y (the online pdf version)		Recent	Only one small chapter in Nuc Med applications
IAEA Radiation Protection of Patients (RPOP)	Web base information and educational portal	https://rpop.iaea.org/RPOP/RPoP/Content/index.htm	IAEA internet portal dedicated to radiation protection of patients.	Y		Fairly extensive information. One page dedicated to radiation protection for children in radiology. The slide presentations are available in English, Spanish and Russian.	No specific information about Pediatric Nuclear Medicine
Image gently	Web base information and educational portal	http://www.imagegently.org http://www.pedrad.org/associations/5364/ig/	Coalition of health care organizations dedicated to providing safe, high quality pediatric imaging.	Y		Extensive, professional, specific information about Pediatric Nuclear Medicine	Basically only in English
The Society for Pediatric Radiology	Web base information and educational portal	http://www.pedrad.org/	The Society for Pediatric Radiology is dedicated to fostering health care through imaging and image-guided care	Y		Full page dedicated to safety on Pediatric imaging in general	No specifics about pediatric Nuclear Medicine

RadiologyInfo.org	Web base information and educational portal for patients	http://www.eanm.org/publications/guidelines/art10.1007_s00259-014-2731-9.pdf	Patient oriented RSNA and ACR developed information web page on Imaging	Y	Fairly comprehensive professional patient oriented web portal. Section dedicated to children's imaging, including nuclear medicine, and explanatory videos. Available in English and Spanish.	Videos only in English
Health Physics Society	Web base information and educational portal	http://hps.org/	Radiation safety information for the professional and non- professional organizations, including public, patients and media.	Y	Ask a questions section. Whole page dedicated to nuclear medicine and the pregnant patient.	Only English and no dedicated page to pediatric Nuclear medicine dose optimization.
SNMMI Dose Optimization web portal	Information and educational portal about dose optimization	http://www.snmmi.org/dose	professional information and education web portal about dose optimization in imaging and particularly in Nuclear Medicine	Y	Comprehensive	Not exclusively dedicated to pediatric nuclear medicine. Only English.
SNMMI Pediatric Activity Calculator	Web-based pediatric activity calculator	http://www.snmmi.org/pedactivitytool	For a particular procedure, this tool calculates the recommended administered activity according to 2014 North American Guidelines and EANM pediatric dose card	Y	Consistent with 2014 harmonized North American and EANM pediatric guidelines	Only English.
SNMMI Dose Calculator	Wen-based dose calculator	http://www.snmmi.org/dosetool	For a particular procedure, this tool calculates the effective and critical organ doses for a variety of standard phantoms including adults, children and pregnant women.	Y	Generally based on ICRP 53, 80, 106 dose models.	Not exclusively dedicated to pediatric nuclear medicine. Only English.
SNMMI What you should know about Radiation and Nuclear Medicine	Web base Slide presentation	http://www.snmmi.org/AboutSNMMI/Content .aspx?ItemNumber=955	Slide presentation about radiation and Nuclear Medicine	Y	Very clear information for the general public	Only English

SNMMI press release on safe/beneficial medical uses of radiation	web page	http://www.snmmi.org/ClinicalPractice/content.aspx?ItemNumber=4825	Information web page on safe use of medical radiation	Y	Clear and for the general public	Only English
SNMMI statement on dose optimization	Position statement	http://snmmi.files.cms- plus.com/docs/SNM_Position_Statement_on_ Dose_Optimization_FINAL_June_2012.pdf	Position statement on dose optimization	Y	Recent, brief and to the point	Only English
North American Consensus Guidelines for Administered Radiopharmaceutic al Activities in Children and Adolescents (JNM, February 2011)	Guideline-paper	http://interactive.snm.org/docs/Pediatric_dose_guidelines_JNM_2011_52_318.pdf	2010 North American pediatric guideline for radiopharmaceutical activities in children and adolescents	Y	Recent	Only English
International Guidelines for Pediatric Radiopharmaceutic al Administered Activities.	Guideline- editorial in J Nucl Med 2014	http://jnm.snmjournals.org/content/55/6/869.long	Editorial on the 2014 harmonized guidelines on pediatric administered activities	Y	Recent	Only English
The 2007 EANM pediatric dosage card: additional notes with respect to F-18	Commentary/er ratum on the EANM 2007 pediatric dose card	http://rd.springer.com/content/pdf/10.1007%2 Fs00259-008-0799-9.pdf	Additional notes with respect to 18Fluoride dosages in the 2007 EANM dose card	Y	2007 version	Only English
The 2007 EANM pediatric dosage card	Guideline-paper	http://rd.springer.com/content/pdf/10.1007%2 Fs00259-007-0370-0.pdf	EANM 2007 pediatric dosage card	Y	Long list of procedures. Elaborated in cardiac imaging	Only English, and being 6 years old
Harmonized Paediatric Guidelines: 2014 EANM dosage card	Guideline-paper	http://rd.springer.com/article/10.1007%2Fs002 59-014-2731-9	2014 harmonized guidelines on pediatric administered activities	Y	New	Only English

Minimizing and Communicating Radiation Risk in Pediatric Nuclear Medicine (JNM, August 2011	paper on communicating radiation risk	http://jnm.snmjournals.org/content/52/8/1240.f ull.pdf+html	Very handy paper on radiation safety in pediatrics	Y	Rarely published topic very well presented	Only English
Fact Sheet: Molecular Imaging Safety	Fact sheet	http://snmmi.files.cms- plus.com/FileDownloads/DiscoverMI/FactShe ets/MISafety.pdf	Fact sheet on radiation safety and radiation dosages, mainly for nonmedical personnel	Y	Easy to read	Only English
Peddose.net	Pediatric dose information, education and research web portal supported by the European Institute for Biomedical Imaging Research	http://www.peddose.net/cms/website.php?id=/en/news.htm&ncid=244	Fairly extensive and elaborated web portal with among other interesting features includes 11 online lectures on this topic of pediatric dosing (from a Peddose presymposium course)	Y	Extensive and fully dedicated web portal; to this topic	, ,
Medical Procedure Radiation Dose Calculator Radiation Dose Assessment Resource website	web portal developed by a group of interested professionals that form RADAR	http://www.doseinfo- radar.com/RADARDoseRiskCalc.html	radiation dose calculator for a large variety of medical procedures including nuclear medicine scans.	Y	Free	English. Not endorsed by any mayor professional organization.
Patient Exposure Radiation Dose Calculator from Radiation Dose Assessment Resource website	web portal sponsored by a group of interested professionals that from RADAR	http://www.doseinfo- radar.com/ExposureCalculator.html	Patient exposure radiation dose calculator for nuclear medicine procedures	Y	Free	English. Not endorsed by any mayor professional organization.

Weight-Based, Low- Dose Pediatric Whole-Body PET/CT Protocols (October 2009)	JNM paper	http://jnm.snmjournals.org/content/50/10/1570 .full.pdf+html	Comprehensive paper on the subject	Y		Comprehensive and free	Only English
Improved Dose Regimen in Pediatric PET (February 2010)	JNM paper	http://jnm.snmjournals.org/content/51/2/293.fu ll.pdf+html	Comprehensive paper on the subject	Y		Comprehensive and free	Only English, and only PET, not PET/CT.
Nuclear Medicine in the First Year of Life (June 2011)	JNM paper	http://jnm.snmjournals.org/content/52/6/905.fu ll.pdf+html	Comprehensive paper on the subject	Y		Comprehensive and free	Only in English.
Evaluation of Optimal Acquisition Duration or Injected Activity for Pediatric 18F-FDG PET/CT (July 2011)	JNM paper	http://jnm.snmjournals.org/content/52/7/1028.f ull.pdf+html	Comprehensive paper on the subject	Y		Comprehensive and free	Only English.
Virtual Reality for Dose Optimization in Pediatric Nuclear Medicine: Better Than the Real Thing (December 2011)	JNM editorial comment ("Invited perspective")	http://jnm.snmjournals.org/content/52/12/1845 _full.pdf+html	Comprehensive paper on the subject	Y		Interesting and Free	Only English
Subjective Perception of Radiation Risk (December 2011 Supplement)	JNM paper	http://jnm.snmjournals.org/content/52/Supple ment_2/29S.full.pdf+html	Informative paper of this interesting topic	Y		Interesting and free	Only English
JNMT Articles on Dose Optimization	JNMT papers (total of 7)	http://interactive.snm.org/index.cfm?PageID= 12418	Interesting papers on this topic	Y		One of the papers talks about low dose CT for SPECT/CT systems	Only English
Applying Image Gently SM and Image Wisely SM in nuclear medicine.	Health Physics paper 2013	http://journals.lww.com/health- physics/toc/2013/02001		N	online subscripti on		Only English

DMSA renal scan	Alasbim Journal	http://www.alasbimnjournal.cl/alasbimn/		Y	Spanish	from 2004
Renal cystography	Alasbim Journal	http://www.alasbimnjournal.cl/alasbimn/		Y	Spanish	from 2004
Paediatric Radiopharmaceutic al Administration: Harmonized Guideline (2014)	EANM - SNMMI	http://www.eanm.org/publications/guidelines/a rt10.1007_s00259-014-2731-9.pdf	Recent article explaining the harmonization between the EANM pediatric dose card and the North American guidelines.	Y	English, Free	Not truly global
Japanese consensus guidelines for pediatric nuclear medicine	JSNM	http://download.springer.com/static/pdf/273/ar t%253A10.1007%252Fs12149-014-0826- 9.pdf?auth66=1398800933_f54abefb6b059d40 792c252e3480ae37&ext=.pdf	Recent (2014) guidelines on pediatric nuclear medicine from the Japanese Society of Nuclear Medicine	Y	Free, recent, version in English available	Only in English and Japanese
Invited perspective - JNM	Commentary on an original paper	http://www.hopkinsmedicine.org/RTD_lab/pdf/2011_JNM_Zanconico_Virtual%20Reality%2_0for%20Dose%20Optimization%20in%20Pediatric%20Nuclear.pdf	Interesting commentary about a JNM paper	Y	Free	Only English
Applying image Wisely and image Gently in nuclear medicine	Slide presentation	http://chapter.aapm.org/nccaapm/jafari.pdf	PDF file of a PowerPoint presentation on how to optimize dose reduction as done in a hospital in the USA.	Y	Free	Only English
Pediatric Nuclear Medicine and Radiation Dose	Article in Semin Nucl Med,2014;44: 202-209		Recent article on dose optimization in pediatric nuclear medicine	N	Well-written and concise description of issues	Only English. Only free with subscription

## **SUPPLEMENTAL TABLE 2.**

Wel	Webinars and Online Lectures								
Format	Web link	Sponsoring organization	Free (Y/N)	Cost (Euros /US dollars)	Language	CME (Y/N)			
online lecture	http://interactive.snm.org/index.c fm?PageID=4660	SNMMI	N	20-40 US\$	English	Y			
online lecture	http://interactive.snm.org/index.c fm?PageID=4660	SNMMI	N	20-40 US\$	English	Y			
online lecture	http://interactive.snm.org/index.c fm?PageID=4660	SNMMI	N	20-40 US\$	English	Y			
online lecture	http://interactive.snm.org/index.c fm?PageID=4660	SNMMI	N	20-40 US\$	English	Y			
online lecture	http://interactive.snm.org/index.c fm?PageID=4660	SNMMI	N	20-40 US\$	English	Y			
LLSAP MOC	http://interactive.snm.org/index.c fm?PageID=3625		N	60-95 US\$	English	Y (MOC			
webinar	http://www.eanm.org/elearning/ webinars/esnm_philips.php?navI	EANM (Philips)	Y		English	?			

	d=323&PHPSESSID=ml94dckk t419mi737289upr7e5				
online lecture	http://www.eanm.org/education_esnm/cme_cte/cme_2011/cme_s ession5.php?navId=83	EANM	Y	English	N
online lecture	http://www.eanm.org/education_esnm/cme_cte/cme_2011/cme_session5.php?navId=83	EANM	Y	English	N
online lecture	http://www.eanm.org/education_esnm/cme_cte/cme_2010/cme_session5.php?navId=83	EANM	Y	English	N
online lecture	http://www.eanm.org/education_esnm/cme_cte/cme_2009/cme_session7.php?navId=83	EANM	Y	English	N
online lecture (2007)	http://www.eanm.org/education_esnm/cme_cte/cte_2007/cte_session2.php?navId=93	EANM	Y	English	N
online lecture (2007)	http://www.eanm.org/education_esnm/cme_cte/cte_2007/cte_session2.php?navId=93	EANM	Y	English	N

online	http://www.eanm.org/education_	EANM	Y	English	N
lecture	esnm/cme_cte/cte_2007/cte_sess				
(2007)	ion2.php?navId=93				