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## **Supplemental Material**

# Presence of Bisphenol A and Parabens in a Neonatal Intensive Care Unit: An Exploratory Study of Potential Sources of Exposure

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Table S1. Concentrations of BPA and PBs and hormone-like activities released from plastic NICU items under soft extraction conditions														
		EDC content (ng/g)										Hormone-like activity		
		BPA		MeP		EtP		PrP		BuP		ΣPBs	E-Screen	PALM Assay
Item	Description	Mean	CV (%)	Mean	CV (%)	Mean	CV (%)	Mean	CV (%)	Mean	CV (%)		$(pME_2eq/g)^a$	(mMProceq/g) <sup>b</sup>
3	Gastro-duodenal feeding tube	<0.1	-	< 0.03	-	< 0.03	-	< 0.03	-	< 0.03	-	-	n.d.	n.d.
4	Extension tube for feeding syringe	<0.1	-	0.07	10.1	< 0.03	-	< 0.03	-	< 0.03	-	0.07	n.d.	n.d.
5	Feeding sampling straw	<0.1	-	< 0.03	-	< 0.03	-	< 0.03	-	< 0.03	-	-	n.d.	n.d.
6	Small dummy	<0.1	-	< 0.03	-	< 0.03	-	< 0.03	-	< 0.03	-	-	n.d.	3*10 <sup>-2</sup>
7	Large dummy	0.1	8.2	< 0.03	-	< 0.03	-	< 0.03	-	< 0.03	-	-	n.d.	n.d.
9A	Pulse oximeter adhesive sensor I (hard section)	<0.1	-	<0.03	-	<0.03	-	<0.03	-	< 0.03	-	-	n.d.	n.d.
14	Sterile gloves	<0.1	-	< 0.03	-	< 0.03	-	< 0.03	-	< 0.03	-	-	n.d.	n.d.
15	Non-sterile gloves	<0.1	-	< 0.03	-	< 0.03	-	< 0.03	-	< 0.03	-	-	n.d.	n.d.
35	Winged IV catheter (transparent section)	<0.1	-	0.53	5.5	<0.03	-	<0.03	-	< 0.03	-	0.53	n.d.	n.d.
36	Winged IV catheter	< 0.1	-	< 0.03	-	< 0.03	-	< 0.03	-	< 0.03	-	-	n.d.	n.d.
37	Single lumen umbilical vein catheter	0.9	7.4	<0.03	-	0.18	8.9	<0.03	-	< 0.03	-	0.18	18.32	n.d.

38	Double lumen umbilical vein catheter	<0.1	-	< 0.03	-	< 0.03	-	< 0.03	-	<0.03	-	-	n.d.	n.d.
39	Extension set for the intravenous infusion system	<0.1	-	< 0.03	-	< 0.03	-	< 0.03	-	<0.03	-	-	n.d.	n.d.
40	Extension set for the intravenous infusion system (light resistant)	<0.1	-	< 0.03	-	< 0.03	-	< 0.03	-	<0.03	-	-	n.d.	n.d.
41	Three-way stopcock	4.7	9.1	< 0.03	-	< 0.03	-	< 0.03	-	< 0.03	-	-	9.32	4*10 <sup>-2</sup>
49	Endotracheal tube	<0.1	-	< 0.03	-	0.87	9.9	0.43	8.8	< 0.03	-	1.30	7.28	n.d.
50	Closed suction system	<0.1	-	< 0.03	-	< 0.03	-	< 0.03	-	< 0.03	-	-	n.d.	n.d.
51	Nasal cannula	<0.1	-	< 0.03	-	1.48	7.9	0.95	11.2	< 0.03	-	2.42	n.d.	n.d.
52	Nasal prong	<0.1	-	< 0.03	-	< 0.03	-	< 0.03	-	< 0.03	-	-	n.d.	n.d.

EDC: endocrine disrupting chemical; BPA: bisphenol A; MeP: methyl-paraben; EtP: ethyl-paraben; PrP: propyl-paraben;  $\sum$ PBs: total concentrations of parabens; CV: coefficient of variation; n.d.: not detected. Values below the limit of detection were represented with the symbol "<" followed by the limit of detection.

<sup>a</sup>Concentrations equivalent to E<sub>2</sub> per gram; <sup>b</sup>Concentrations equivalent to procymidone per gram.



Figure S1. Dose-response curves of E2 and ICI on MCF-7cells and R1881 and procymidone on PALM cells. MCF-7 cells were incubated for 144 h at 37 °C with E2 (Panel A) or ICI in the presence of 100 pM E2 (Panel B) at the indicated concentrations. The values represent the mean  $\pm$  SD of two independent experiments (in triplicate) and results are expressed as proliferative effect [MCF-7 cell proliferation (-fold over control)]. Data were analyzed for significant differences using one-way ANOVA followed by Dunnett's post-comparison test. \*p< 0.05 and \*\*p< 0.01 (versus hormone-free control or E2 100 pM). PALM cells treated with R1881 (Panel C) or procymidone in the presence of 0.2 nM R1881 (Panel D) at the indicated concentrations for 40 h at 37 °C. The values represent the mean  $\pm$  SD of two independent experiments (in triplicate) and results are expressed as percentage of maximal R1881 induction. Data were analyzed for significant differences using one-way ANOVA followed by Dunnett's post-comparison test. \*p< 0.05 and \*\*p< 0.01 (versus R1881 induction. Data were analyzed for significant differences using one-way ANOVA followed by Dunnett's post-comparison test. \*p< 0.05 and \*\*p< 0.01 (versus R1881 10 or 0.2 nM). ICI: The estrogen receptor antagonist ICI 182780; E2: 17β-estradiol.