12. Remove personal protection equipment in ante-room or inside patient's room.

The PAPR system consists of a belt-mounted powered air purifier (Figure, left) with a HEPA filter, connected via a tube to a light-weight head-piece (Figure, right). The HEPA filter removes particles of 0.3–15 mm with an efficiency of 98–100%.[4] We have several years experience in using the PAPR system in the bronchoscopy suite and there are no documentation of disease transmission to health-care workers. The PAPR system has been suggested by the World Health Organization and the Center for Disease Control for SARS protection.

It takes time to setup properly (steps 1–7). Therefore, it is crucial to have advance warning of patients requiring intubation. Furthermore, staff involved in intubation must be trained and familiar with the personal protection equipment so that it can be applied properly and expediently (steps 5–7); and removed properly to avoid contamination.

As traditional respiratory and contact precautions have been shown to provide inadequate protection against SARS, we have developed this protocol which offers improved protection. The intubation protection protocol should be utilized whenever suspected SARS or infectious patients are encountered.

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Desmopressin before liver transplantation

To the Editor:

We read the well-conducted study by Wong *et al.*[1] with interest. They found that desmopressin in patients undergoing hepatectomy (including those with cirrhosis) increased factor VIII and von Willebrand factor levels, marginally shortened the partial thromboplastin time (PTT) and had no effect on blood loss. We too had anticipated a beneficial effect of desmopressin in surgical patients with cirrhosis based on results in the medical cirrhotic population[2,3] and *in vitro* results in patients undergoing liver transplantation (LT).[4]

After Institutional approval and patient consent, we administered desmopressin (0.3 $\mu g \cdot kg^{-1}$) after anesthetic induction to nine patients undergoing LT. Baseline coagulation tests (prothrombin time, PTT, platelet count, thrombelastograph and Sonoclot analysis) were performed immediately prior to desmopressin and after 15 and 30 min. Data collection was completed before surgical incision and the possible confounding effects on coagulation.

Surprisingly, we found no short-term change in any of the measured variables ($P > 0.2$), including those that were abnormal at baseline. Although effects of desmopressin have been demonstrated within 30 min, this period may have been insufficient in our population, and there is data to suggest that a dose > 0.3 $\mu g \cdot kg^{-1}$ may be more beneficial.[2] However, given these findings, we did not proceed with a prospective, randomized study.

Until Wong *et al.*'s study, there had been no systematic investigation of desmopressin in a surgical population with liver disease, and their data will be useful for clinicians who have had to rely on either *in vitro* data, data from non-surgical patients or preliminary studies such as ours.

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Perineal pruritus after iv dexamethasone administration

To the Editor:

Intravenous dexamethasone is useful in the prevention or treatment of postoperative nausea and vomiting. We recently observed an unusual reaction after the administration of *iv* dexamethasone in three consecutive patients before induction of general anesthesia. Immediately after receiving a bolus injection of 8 mg of dexamethasone sodium phosphate (Sabex, Boucherville, QC, Canada), the patients experienced perineal burning, itching and tingling. This reaction was short-lived with a duration ranging from 30 to 45 sec. After informed consent was obtained, 20 additional patients (10 males and 10 females) were asked about the occurrence of an unusual sensation after a bolus administration of dexamethasone before induction of general anesthesia (Table). All females reported the same reaction, while only three males were affected.

Intravenous dexamethasone-induced perineal pruritus has been described in association with antiemetic use in chemotherapy,[1] in the setting of acute head injury secondary to blunt trauma in an attempt to reduce intracranial pressure,[2] and as an anti-inflammatory agent in the perioperative course of oral surgery.[3] We are not aware of any similar reports in the anesthetic literature. The incidence of this reaction has not been clearly defined but could range between 25 to 100% depending on the dose and speed of administration.[1–5] We observed that females seem more at risk of presenting this adverse effect, a finding that has been already described in the literature.[3,4] The pharmacological mechanism explaining this phenomenon remains poorly understood, but could be related to the phosphate ester of the corticosteroid since perineal irritation has been described with hydrocortisone-21-phosphate sodium and prednisolone phosphate.[1] Fortunately, this adverse effect can be diminished or even abolished by giving dexamethasone diluted in 50 mL of fluid over five to ten minutes.[1,3,5]

In conclusion, anesthesiologists should be aware of this unusual adverse reaction. The slow *iv* infusion of diluted dexamethasone seems to prevent perineal irritation and patient discomfort.

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TABLE Perineal pruritus after *iv* dexamethasone administration

Sex (M/F)	*Weight (kg)*	*Age (yr)*	*Dose (mg)*	*Pruritis (±)*	*Onset (sec)*	*Duration (sec)*	*Location*
F	68	43	6	+	30	30	vagina
F	63	39	6	+	25	40	vagina
F	51	24	6	+	30	40	vulva, vagina
F	72	44	8	+	35	30	vagina
F	80	29	8	+	40	25	anus, vagina
M	56	31	6	-	-	-	-
M	86	42	8	-	-	-	-
F	74	46	6	+	20	30	vulva
M	83	40	6	-	-	-	-
M	81	65	6	-	-	-	-
F	62	56	6	+	30	30	anus, vulva, vagina
M	77	46	6	-	-	-	-
M	71	54	6	-	-	-	-
F	73	71	6	+	20	30	vulva
F	55	43	5,5	+	40	30	anus, vulva, vagina
F	60	26	6	+	30	35	anus, vulva, vagina
M	82	17	8	+	40	20	anus
M	82	18	8	-	-	-	-
M	88	40	9	+	25	40	anus, scrotum
M	80	15	8	+	30	30	anus, penis