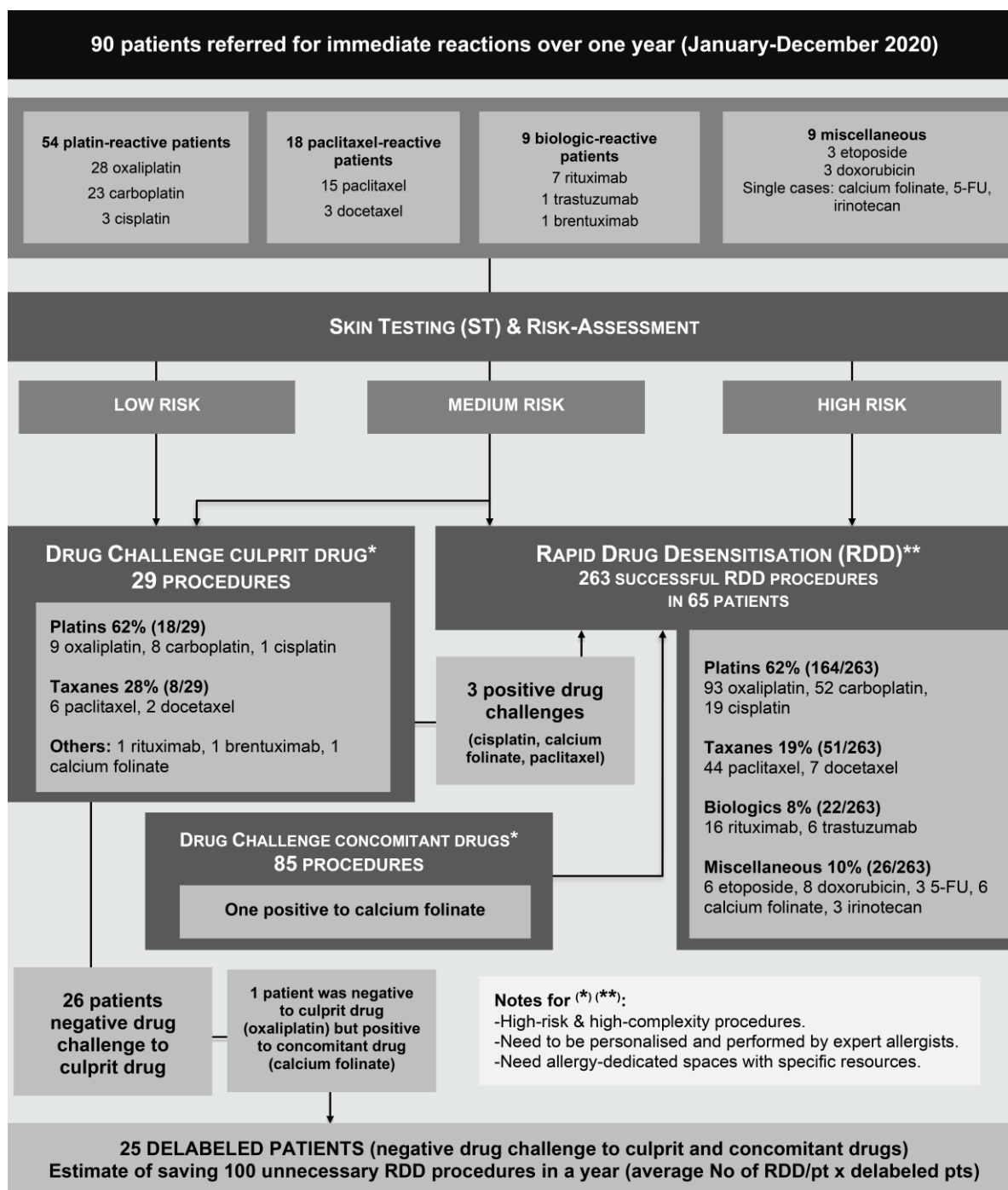


## MATERIAL SUPPLEMENTARY

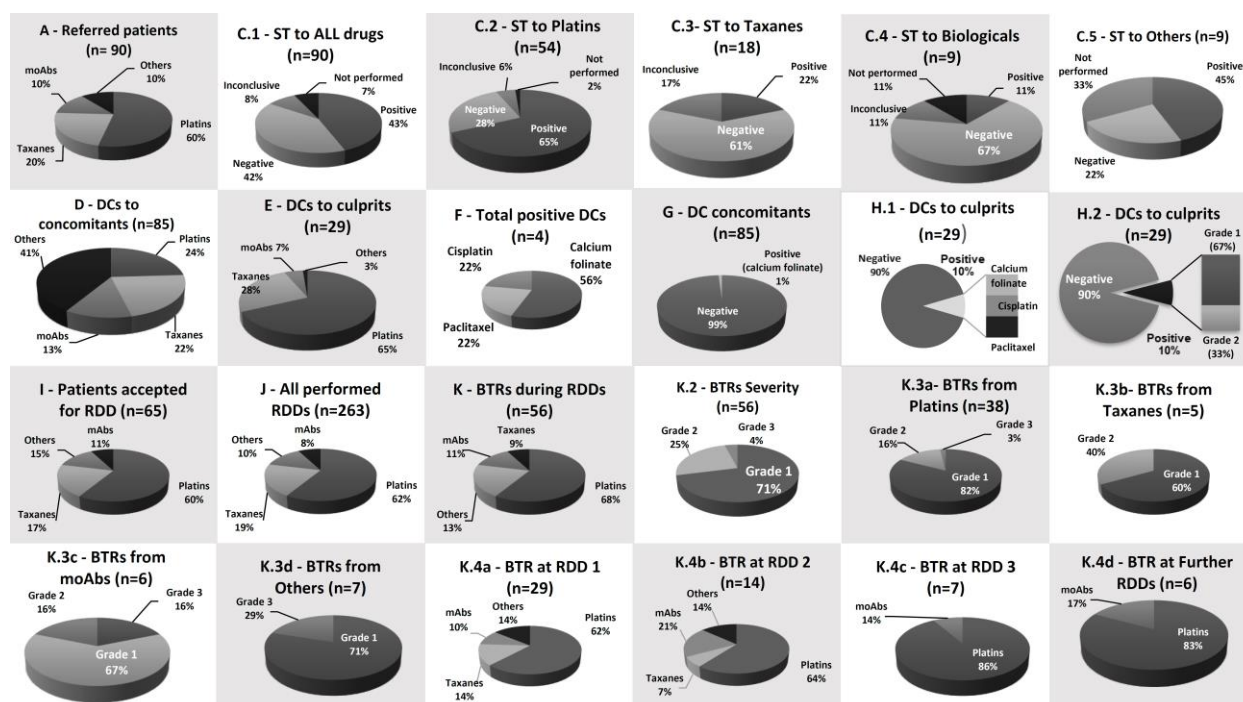
**Supplemental Figure 1.** Flow chart showing the assessment and management of 90 patients reacting to antineoplastic drugs during a one-year period. The pathway included drug challenge and rapid drug desensitization with a single-bag flexible protocol



**LEGEND:** ST, skin testing; RDD, rapid drug desensitization; pt, patient

**Further patient information:** All patients were being treated for malignancy. The mean age was 61 years (from 28 to 86), and 68% (61/90) were women. As shown in the figure, most were platin-reactive patients. Initial reactions were severe in 26% (23/90) of cases, moderate in 43% (39/90), and mild in 31% (28/90). A type I endophenotype was observed in 63% (57/90) of patients, whilst 27% (24/90) showed cytokine release reactions, and 10% (9/90) experienced mixed reactions (sharing features of both type I reactions and cytokine release reactions).

**Supplemental Figure 2.** Detailed data on the referred patients, results of skin testing, results of drug challenge, and rapid drug desensitization during the one-year pilot study to validate the use of a one-bag rapid desensitization protocol at the ICO-HUB Drug Desensitisation Centre.



**Legend:** moAbs, monoclonal antibodies; ST, skin testing; concomitants, drugs that were administered concomitantly or immediately before the culprit drug; DC, drug challenge; RDD, rapid drug desensitization; BTR, breakthrough reaction during rapid drug desensitization; severity of the reactions measured as per Brown's scale; ICO-HUB, Catalan Institute of Oncology-Bellvitge University Hospital.

#### Further safety data:

We documented BTRs in only 21% (56/263) of all RDD procedures. Reassuringly, most BTRs were mild (71%), and only two BTRs were grade 3 (4%).

As expected, most reactions were immediate. However, there were only two nonimmediate reactions: one patient experienced fever the same night after an oxaliplatin RDD with no symptoms of oxaliplatin immune-induced syndrome, and one patient experienced a benign exanthema eight hours after a paclitaxel RDD. Both patients tolerated their following RDD procedure without needing adjustments, so we wonder whether these 'reactions' were incidental.

Even if most RDD procedures were uneventful, 52% (29/56) of all desensitized patients experienced at least one BTR, which happened in all these patients in the first RDD, as it is common. Fourteen patients had a second reaction on their second RDD. And seven patients reacted to the third procedure. Most patients seemed to tolerate RDD by the fourth procedure after personalized adjustments. However, six patients had BTRs after many uneventful RDDs; one of them experienced anaphylaxis on RDD No 14, and three oxaliplatin-reactive patients experienced fever/chills on RDDs No 4, 6, and 11 (two of them caused by the culprit oxaliplatin, and one of them by concomitant leucovorin). These reactions after many uneventful RDDs demonstrate that this is an unpredictable, high-risk procedure and explain why we perform all our RDDs under the direct supervision of expert allergists within an allergy-dedicated technical area.