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Correction to: Guideline for the diagnosis of drug hypersensitivity reactions

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In the original published version, Tab. 4, first two lines, the names of the in Europe currently commercially available β -Lactam antibiotics were not given correctly. Furthermore, the corresponding values of the prick test and intradermal test concentrations were published wrongly. The correct table is given here.

Suspected drug hypersensitivity reactions require allergological investigation in order, firstly, to prevent severe reactions upon renewed exposure or, secondly, to avoid unnecessary drug restrictions. Skin tests are important to detect sensitization to drugs. The methods described by the European Network on Drug Allergy (ENDA) in several guidelines and position papers are currently recommended. In 2003, an error concerning testing for beta-lactam allergy found its way into these recommendations stating incorrect test concentrations for the two commercial penicillin test

Table 4 Non-irritant skin test concentrations of frequently tested drugs [4]

Drug or drug class	Prick test	Intradermal test ^h	Patch test
β-Lactam antibiotics			
<i>Benzylpenicilloyl-octa-L-lysine</i>	8.6×10^{-5} mol/L	8.6×10^{-5} mol/L	NA
<i>Sodium benzylpenilloate</i>	1.5×10^{-3} mol/L	1.5×10^{-3} mol/L	NA
Benzylpenicillin	10,000 IU/ml	10,000 IU/ml	5%
Amoxicillin	20 mg/ml	20 mg/ml	5%
Ampicillin	20 mg/ml	20 mg/ml	5%
Cephalosporins	2 mg/ml	2 mg/ml	5%
Anticoagulants			
Heparins ^a	Undiluted ^h	1/10 diluted	Undiluted ^h
Heparinoids ^b	Undiluted ^h	1/10 diluted	Undiluted ^h
Platinum salts			
Carboplatin	10 mg/ml	1 mg/ml	NA
Oxaliplatin	1 mg/ml	0.1 mg/ml	NA
Cisplatin	1 mg/ml	0.1 mg/ml	NA
NSAIDs			
Pyrazolones ^c	Suspension ⁱ	0.1–1 mg/ml	10%
Coxibs ^d	Suspension ⁱ	NA	10%
Other NSAID ^e	Suspension ⁱ	0.1–1 mg/ml	10%
Biologicals			
Adalimumab	50 mg/ml	50 mg/ml	Undiluted ^h
Etanercept	25 mg/ml	5 mg/ml	NA
Infliximab	10 mg/ml	10 mg/ml	NA
Omalizumab	1.25 μ g/ml	1.25 μ g/ml	NA
Others			
Local anesthetics	Undiluted ^h	1/10 diluted	Undiluted ^h
Iodinated contrast media	Undiluted ^h	1/10 diluted	Undiluted ^h
Gadolinium chelates	Undiluted ^h	1/10 diluted	NA
Patent blue	Undiluted	1/10 diluted	NA
Methylene blue	Undiluted	1/100 diluted	NA
Fluorescein	Undiluted ^h	1/10 diluted	Undiluted ^h
Proton pump inhibitors ^f	Undiluted ^h	40 mg/ml	10%
Anticonvulsants ^g	NA	NA	10%
Chlorhexidine digluconate	5 mg/ml	0.002 mg/ml	1%

NA not applicable or no recommended concentration, NSAID non-steroidal anti-inflammatory drugs
^aHeparins: unfractionated heparin, nadroparin, dalteparin, enoxaparin; testing contraindicated in heparin-induced thrombocytopenia
^bHeparinoids: danaparoid, fondaparinux
^cPyrazolones: metamizole, propyphenazone, aminopyrine, phenazone, phenylbutazone
^dCoxibs: celecoxib, etoricoxib, valdecoxib
^eOther NSAIDs: e. g., aspirin, ibuprofen, naproxen, indomethacin, diclofenac, fenoprofen, meloxicam, mefenamic acid, nimesulide
^fNo intravenous solution available for intradermal testing with lansoprazole and rabeprazole, only for prick testing
^gTest initially with 1% in the case of severe reactions
^hUse of the commercially available solution for intravenous infusion or subcutaneous injection
ⁱTablet is ground to a powder and a suspension prepared using physiological saline solution

kits available in Europe at that time [1]; this error was then copied in several position papers [2–4], as well as in the “Guideline for the diagnosis of drug hypersensitivity reactions” [5]. In these documents, reagent concentrations were incorrectly expressed in mmol/L, instead of mol/L. Regarding the available commercial test kits, one producer has discontinued the production of their kits (Alleropen, Allergopharma, Germany). The other test kit was modified in 2012 and is available since then with a higher purified formulation of the major determinant benzylpenilloyl-octa-L-lysine instead of benzylpenilloyl-poly-L-lysine and improved stability using sodium benzylpenicilloate as the single minor determinant instead of a minor determinant mixture (DAP® Kit, Diater, Madrid, Spain). It is currently the only commercially available test kit in Europe.

The correction relates to the major determinant (benzylpenicilloyl octa-L-lysine) and the minor determinant (sodium benzylpenicilloate). They are present following reconstruction in 1 ml solvent at concentrations of 8.6×10^{-5} mol/L (related to eight benzylpenicilloyl moieties) and 1.5×10^{-3} mol/L (for sodium benzylpenicilloate) and not, as given in the relevant overview articles, 5×10^{-5} mM penicilloyl poly-L-lysine and 2×10^{-2} mM for the minor determinant mixture. Thus, the data in Table 4 need to be corrected accordingly. Compliance with the written instructions enclosed with the DAP® Penicillin Test Kit automatically yields the correct test concentrations. The corrected version of Table 4 can be found above.

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