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# Correction to: Guideline for the diagnosis of drug hypersensitivity reactions

**Knut Brockow · Bernhard Przybilla · Werner Aberer · Andreas J. Bircher · Randolf Brehler · Heinrich Dickel · Thomas Fuchs · Thilo Jakob · Lars Lange · Wolfgang Pfützner · Maja Mockenhaupt · Hagen Ott · Oliver Pfaar · Johannes Ring · Bernhardt Sachs · Helmut Sitter · Axel Trautmann · Regina Treudler · Bettina Wedi · Margitta Worm · Gerda Wurpts · Torsten Zuberbier · Hans F. Merk**



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Prof. Dr. K. Brockow (✉) · J. Ring
Department of Dermatology and Allergology am Biederstein, Technische Universität München, Biedersteiner Straße 29, 80802 Munich, Germany
knut.brockow@tum.de

B. Przybilla
Department of Dermatology and Allergology, Allergy Center, Ludwig Maximilian University of Munich, Munich, Germany

W. Aberer
Department of Dermatology, Medical University of Graz, Graz, Austria

A. J. Bircher
Department of Allergology, University Hospital Basle, Basel, Switzerland

R. Brehler
Department of Dermatology, Münster University Hospital, Münster, Germany

H. Dickel
Department of Dermatology, Venereology and Allergology, St. Josef Hospital, Ruhr University Bochum, Bochum, Germany

T. Fuchs
Department of Dermatology, Venereology and Allergology, Göttingen University Hospital, Göttingen, Germany

T. Jakob
Department of Dermatology and Venereology, Freiburg University Hospital, Freiburg, Germany

L. Lange
Department of Pediatrics, Marien Hospital, Bonn, Germany

W. Pfützner
Department of Dermatology and Allergology, Gießen and Marburg University Hospital, Marburg, Germany

M. Mockenhaupt
German Center for the Documentation of Severe Skin Reactions, Department of Dermatology and Venereology, Freiburg University Hospital, Freiburg, Germany

H. Ott
Children's and Adolescents' Hospital "Auf der Bult", Hannover, Germany

O. Pfaar
Center for Rhinology and Allergology, ENT at Mannheim University Hospital, Wiesbaden, Germany

B. Sachs
Federal Institute for Drugs and Medicinal Products, Bonn, Germany

H. Sitter
Institute of Theoretical Surgery, Philipps University, Marburg, Germany

A. Trautmann
Department of Dermatology and Allergology, Mainfranken Allergy, Würzburg University Hospital, Würzburg, Germany

R. Treudler
Department of Dermatology, Venereology and Allergology, Leipzig University, Leipzig, Germany

B. Wedi
Department of Dermatology, Venereology and Allergology, Hannover Medical University, Hannover, Germany

M. Worm · T. Zuberbier
Department of Dermatology, Venereology and Allergology, Charité University Hospital, Berlin, Germany

G. Wurpts · H. F. Merk
Department of Dermatology and Allergology, RTWH Aachen, Aachen, Germany



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In the original published version, Tab. 4, first two lines, the names of the in Europe currently comercially available ß-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 |
|---|---|---|---|
| ß-Lactam antibiotics | | | |
| *Benzylpenicilloyl-octa-L-lysine* | *$8.6 \times 10^{-5}$ mol/L* | *$8.6 \times 10^{-5}$ mol/L* | NA |
| *Sodium benzylpenilloate* | *$1.5 \times 10^{-3}$ mol/L* | *$1.5 \times 10^{-3}$ 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 µg/ml | 1.25 µg/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
[a]Heparins: unfractionated heparin, nadroparin, dalteparin, enoxaparin; testing contraindicated in heparin-induced thrombocytopenia
[b]Heparinoids: danaparoid, fondaparinux
[c]Pyrazolones: metamizole, propyphenazone, aminopyrine, phenazone, phenylbutazone
[d]Coxibs: celecoxib, etoricoxib, valdecoxib
[e]Other NSAIDs: e. g., aspirin, ibuprofen, naproxen, indomethacin, diclofenac, fenoprofen, meloxicam, mefenamic acid, nimesulide
[f]No intravenous solution available for intradermal testing with lansoprazole and rabeprazole, only for prick testing
[g]Test initially with 1% in the case of severe reactions
[h]Use of the commercially available solution for intravenous infusion or subcutaneous injection
[i]Tablet 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 benzylpenilloate). They are present following reconstruction in 1 ml solvent at concentrations of $8.6 \times 10^{-5}$ mol/L (related to eight benzylpenicilloyl moieties) and $1.5 \times 10^{-3}$ mol/L (for sodium benzylpenilloate) and not, as given in the relevant overview articles, $5 \times 10^{-5}$ mM penicilloyl poly-L-lysine and $2 \times 10^{-2}$ 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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