The international BRIGHT Study
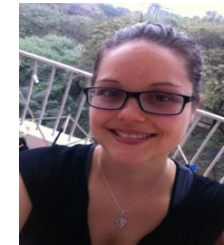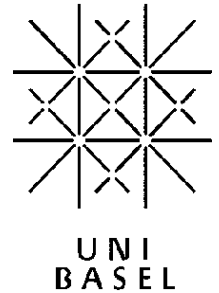
Building Research Initiative Group. Chronic Illness management and adHerence in Transplantation.

BRIGHT Study

Building Research Initiative Group:
Chronic Illness Management and Adherence in Transplantation

KU LEUVEN

International Transplant Nurses Society

UNI BASEL

4 continents, 11 countries, and 36 heart transplant centers

Funded by:

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Building Research Initiative Group:
Chronic Illness Management and Adherence in Transplantation

International
Transplant Nurses
Society

INTERNATIONAL SOCIETY FOR HEART & LUNG TRANSPLANTATION

SAMW ASSM
Schweizerische Akademie der Medizinischen Wissenschaften
Académie Suisse des Sciences Médicales
Academia Svizzera delle Scienze Mediche
Swiss Academy of Medical Sciences

astellas

Primary aims (1)

1: To describe practice patterns regarding chronic illness management among heart transplant centers (HTx).

2: To assess the prevalence and variability of non-adherence to treatment regimen, i.e., **medication taking, sun protection, smoking cessation, diet keeping, alcohol consumption, physical activity, and appointment keeping** in heart transplant recipients among centers, countries/continents in heart transplantation.
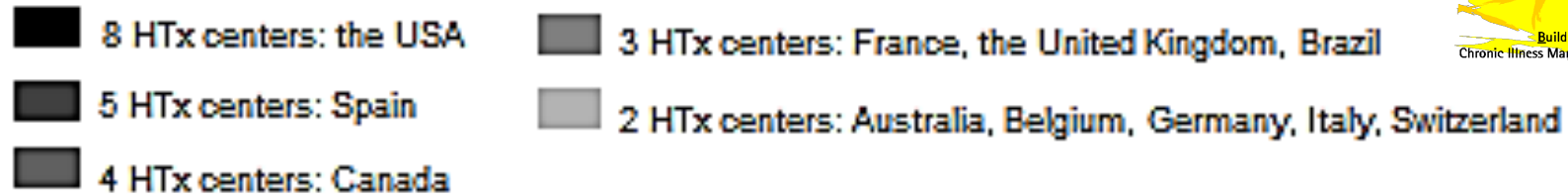
Berben et al. Journal of Advanced Nursing, 2015; 71(3): 642-654.

Primary aims (2)

3: To determine which multi-level factors are related to immunosuppressive medication adherence at the:

- **Patient level:** i.e., patient beliefs, intentions, self-efficacy and barriers, social norms, depression, health literacy

- **Healthcare provider level:** i.e., patient satisfaction with the interpersonal dimension of care, trust in the transplant team, received social support

- **Healthcare organization level:** i.e., level of chronic illness care implemented, practice patterns of the transplant program regarding chronic illness management

- **Healthcare policy level:** i.e., perceived financial burden of treatment regimen, insurance status, system of healthcare coverage.
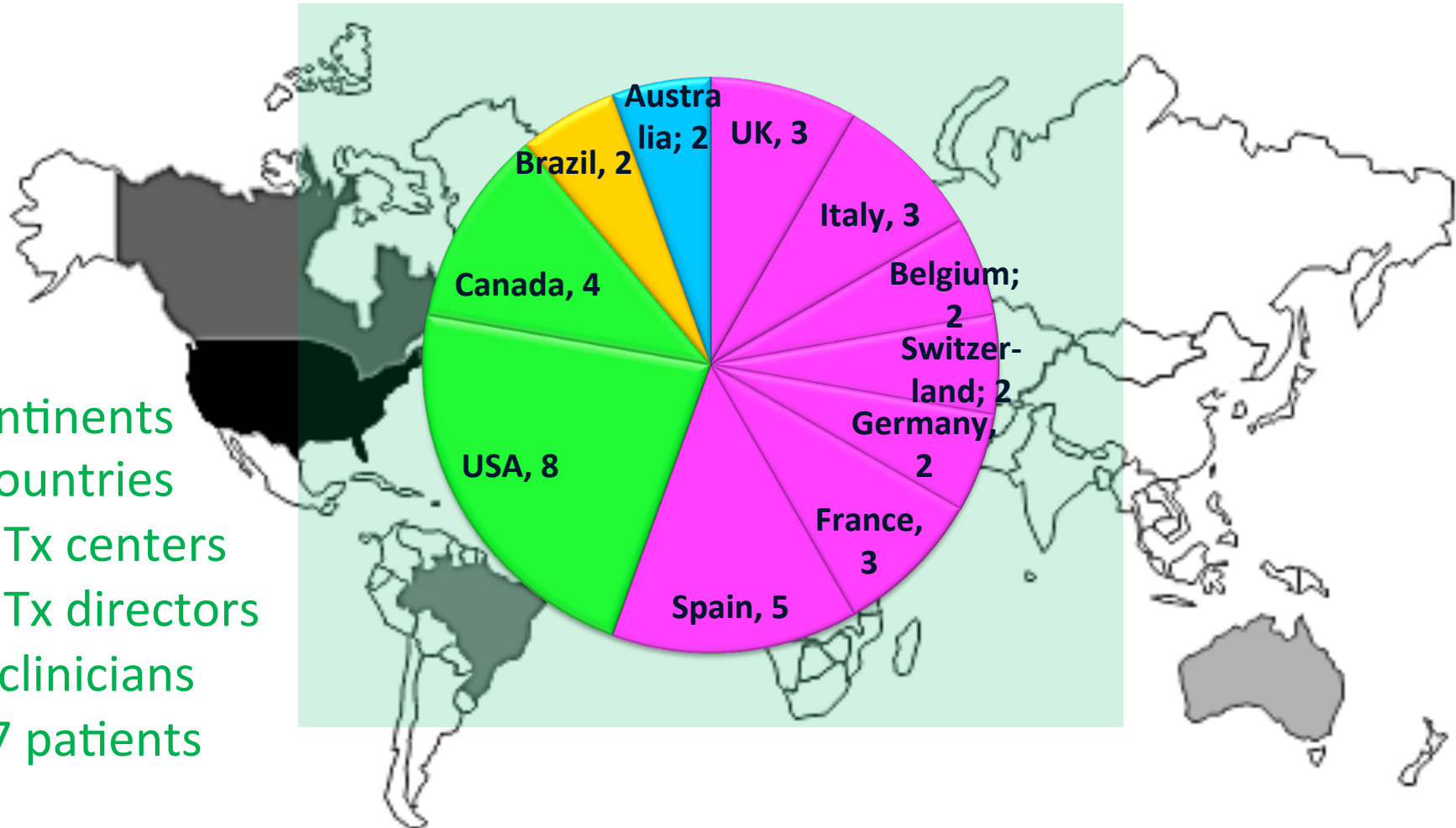
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Methods

Multistaged sampling approach
Combination of convenience and randomized sampling methods

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- 8 HTx centers: the USA
- 5 HTx centers: Spain
- 4 HTx centers: Canada
- 3 HTx centers: France, the United Kingdom, Brazil
- 2 HTx centers: Australia, Belgium, Germany, Italy, Switzerland

4 continents
11 countries
36 HTx centers
36 HTx directors
100 clinicians
1397 patients

Methods
Variables and measurement

Established instruments or measures specifically developed for this study

| Clinical information | Patient questionnaires | Transplant nurses questionnaire | Transplant director questionnaire |

Berben et al. Journal of Advanced Nursing, 2015; 71(3): 642-654.

Methods

Data analysis

1. Descriptive statistics as appropriate

- Aggregation of selected variables to center, country & continent level using weighted approaches

2. Inferential statistics

- Multilevel modeling taking into consideration the nested data structure

Selected findings

1. Prevalence and variability of non-adherence to treatment regimen non-adherence to treatment regimen & selected practice patterns

Medication taking

Practice Patterns: Intake of immunosuppressive medications discussed (n=1368)

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Percentage of patients reporting that their HTx team **had discussed the intake of immunosuppressive medications** with them (yes).

Overall percentage all patients (n=1368)
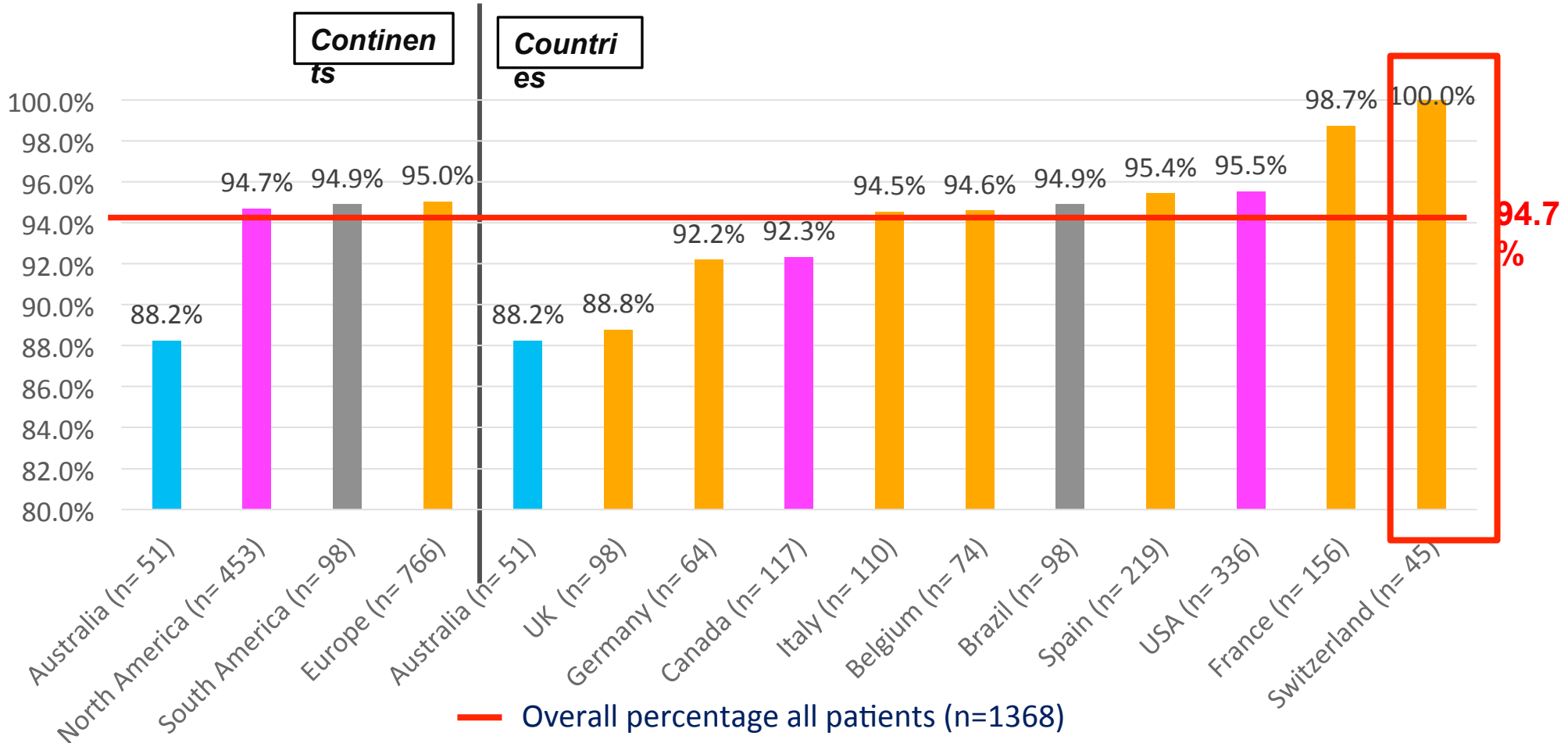
Non-adherence: Implementation (n=1392)

Implementation non-adherence defined as skipping 1 or more doses, taking the doses 2 hours or more before or after the prescribed time the doses, or altering the doses of the immunosuppressive medications during the last 4 weeks

BAASIS©, De Geest et al. University of Basel (CH)

Continents | Countries

Chart values:
- EU (n= 783): 32%
- SA (n= 100): 32%
- NA (n= 458): 45%
- AU (n= 51): 65%
- Germany (n= 65): 23%
- Spain (n= 227): 24%
- Italy (n= 111): 28%
- Belgium (n= 74): 31%
- Brazil (n= 100): 32%
- France (n= 160): 38%
- USA (n= 339): 44%
- UK (n= 99): 44%
- Switzerland (n=): 45%
- Canada (n= 119): 48%
- Australia (n= 51): 65%

Overall percentage all patients (n=1392): 37.4%
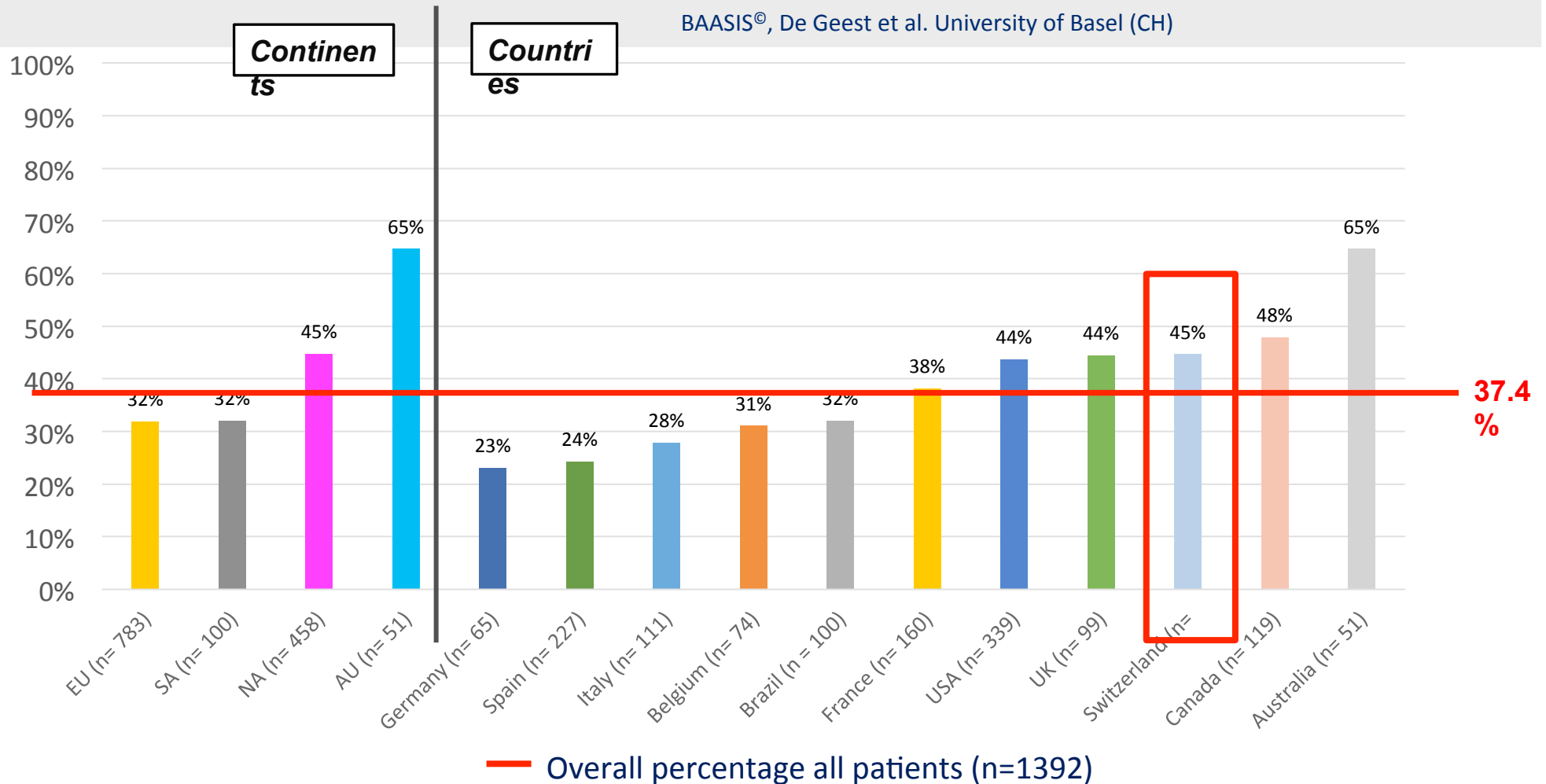
2. Multi-level factors are related to immunosuppressive medication adherence

Multi-level factors are related to self-reported non-adherence to immunosuppressive drugs in heart Tx (N=1370)

Macro

Meso

Micro

Patient

Health care provider

Health care organization

Health Care Policy

Barriers in routines of med. taking
⬆ OR 11.5 (6.46-20.6)
Smoking post-transplant ⬆ OR 2.17 (1.32-3.56)

Support with reading health-related materials
⬇ OR 0.85 (0.77-0.95)

Non-adherent transplant patients are targeted more for intervention ⬇ OR 0.64 (0.46-0.88)
Medication pick-up at the physician's office
⬆ OR 2.46 (1.30-4.80)

Monthly out of pocket costs ⬆ OR 1.14 (1.00-1.30)

Medication non-adherence
(taking, timing, dose reduction)
37.4%

What do we learn from this analysis?

- **Multi-level factors are associated to non-adherence to immunosuppressive drugs in heart transplantation**

    → findings indicate that we need to plan multi-level interventions to tackle the issue of medication non-adherence

    → modifiable correlates indicate leverage points at different levels (patient, micro, meso & macro level) to develop a multi-level adherence interventions

Conclusions

- ➤ **Practice patterns in view of patient self management support vary**

- ➤ **Non-adherence to immunosuppressive medication is highly prevalent worldwide yet variability in health behavioral outcomes is observed internationally**

- ➤ **Multilevel factors are associated with medication non-adherence calling for multi-level interventions**

We thank the BRIGHT study team and participating centers:

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