DIFFERENTIAL DIAGNOSIS OF

TINEA INFECTIONS

A READY RECKONER

HIGHLIGHTS

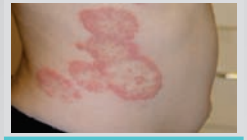
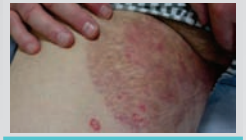
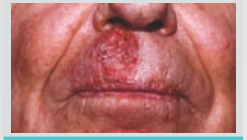
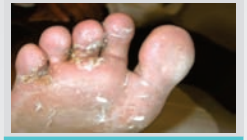
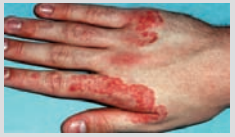
- Eczema vs Psoriasis
- Atopic Dermatitis vs Contact Dermatitis
- Atopic Dermatitis vs Tinea Corporis
- Tinea Versicolor vs Tinea Corporis
- Tinea Pedis vs Contact Dermatitis

Anglo-French Drugs & Industries Ltd.
Bengaluru

In Tinea infection

AFDERM™

Itraconazole 100 / 200 mg Capsules

Tinea Corporis	Tinea Cruris	Tinea barbae	Tinea pedis	Tinea Manuum
				
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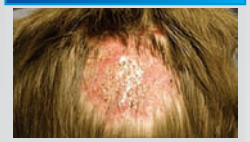	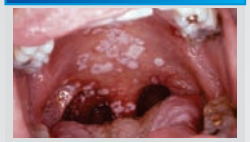			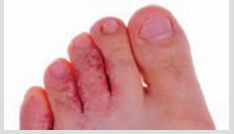
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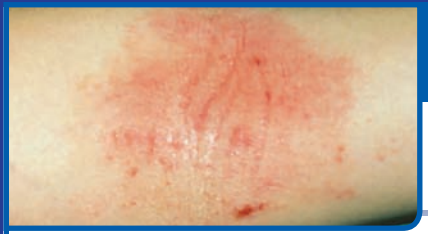
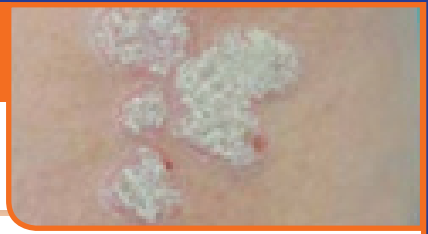


ECZEMA VS PSORIASIS



ECZEMA		PSORIASIS
Inflammatory disease	Cause	Inflammatory disease
➤ Itchy, red and inflamed skin; may be scaly, oozing, or crusty ➤ **More itchy than psoriasis**	Differentiating signs/symptoms	➤ Well-defined, raised red patches; adherent thick silvery scale ➤ **Skin is thicker and more inflamed than with eczema**
➤ Insides of elbows, backs of knee, front of ankles	Location	➤ Elbows, knees, scalp, face, lower back ➤ Palms of hands, soles of feet
➤ Primarily clinical ➤ History and physical exam	Diagnosis	➤ Clinical findings ➤ History and examination
➤ Allergy testing, IgE levels, skin biopsy	Lab test	➤ Physical exam and medical history is sufficient

DIFFERENTIAL TREATMENT APPROACH

ECZEMA		PSORIASIS
Corticosteroids, phototherapy, systemic treatments Itraconazole (non-response to topical steroids); dosage: 100-200 mg/day	Medication	Light therapy, systemic therapy Itraconazole (reduces skin irritation); dosage: 200 mg/day
Avoid eczema triggers (house dust mites, irritants, dietary allergens, stress) Skin care	Personal hygiene	Avoid psoriasis triggers (skin injuries, stress, smoking and intense sun exposure) Skin care

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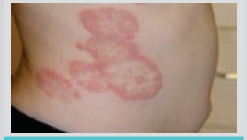	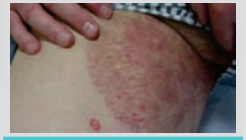	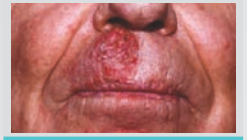	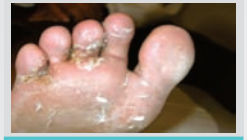	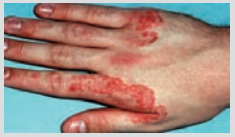
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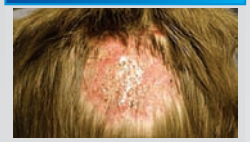	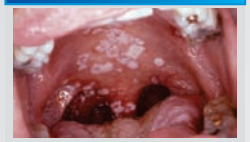			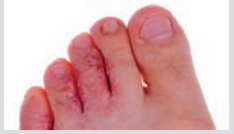
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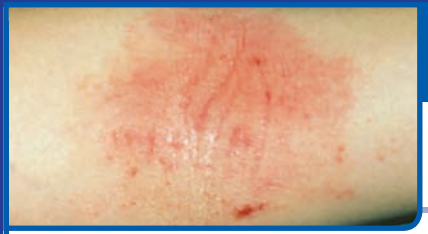
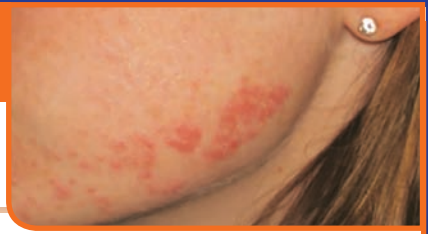


ATOPIC DERMATITIS	VS	CONTACT DERMATITIS
Inflammatory disease	Cause	Inflammatory disease
➤ Itchy, red and inflamed skin; may be scaly, oozing, or crusty ➤ **Usually symmetric lesions**	Differentiating signs/symptoms	➤ Red rash, without clearly defined edges, swelling, stinging, pruritus ➤ **Asymmetric lesions**
➤ Insides of elbows, backs of knee, front of ankles	Location	➤ Body part in contact with the irritant (metals, latex rubber, scents, essential oils)
➤ Primarily clinical ➤ History and physical exam	Diagnosis	➤ Physical examination ➤ Positive exposure history to the irritant
➤ Allergy testing, IgE levels, skin biopsy	Lab test	➤ Patch testing (for relevant irritant and allergen) ➤ Limited role for skin biopsy



DIFFERENTIAL TREATMENT APPROACH

Corticosteroids, phototherapy, systemic treatments	Itraconazole (non-response to topical steroids); dosage: 100-200 mg/day	Medication	Topical steroid	Ointments	Emollients
Avoid eczema triggers (house dust mites, irritants, dietary allergens, stress)	Skin care	Personal hygiene	Avoid contact with the irritant	Appropriate clothing and gloves to protect against irritants	

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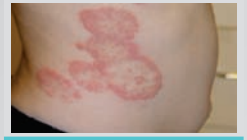	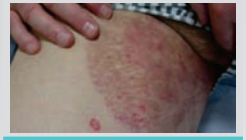	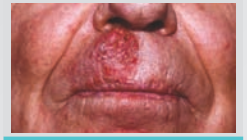	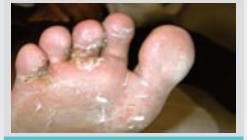	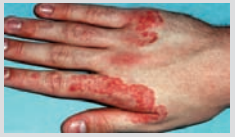
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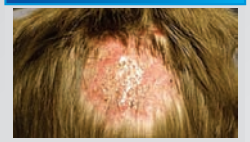	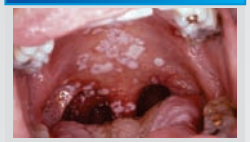			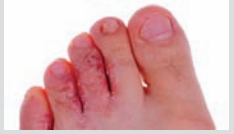
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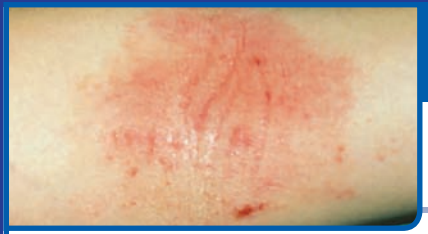
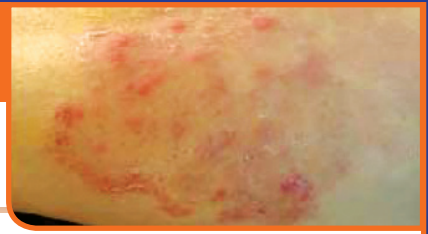


ATOPIC DERMATITIS VS TINEA CORPORIS



ATOPIC DERMATITIS		TINEA CORPORIS
Inflammatory disease	Cause	Fungal infection
➤ Itchy, red and inflamed skin; may be scaly, oozing, or crusty ➤ **Less likely to have active border with central clearing**	Differentiating signs/symptoms	➤ Red, annular, scaly patch; commonly itchy ➤ **Central clearing, active border**
➤ Insides of elbows, backs of knee, front of ankles	Location	➤ Body part other than bearded area, scalp, groin, hands or feet
➤ Primarily clinical ➤ History and physical exam	Diagnosis	➤ Visual inspection ➤ Laboratory investigation
➤ Allergy testing, IgE levels, skin biopsy	Lab test	➤ Wood's light examination; KOH preparation ➤ Culture and antifungal sensitivity

DIFFERENTIAL TREATMENT APPROACH

Corticosteroids, phototherapy, systemic treatments	Itraconazole (non-response to topical steroids); dosage: 100-200 mg/day	Medication	Topical and oral antifungals	Itraconazole 100-200 mg/day (1-2 weeks)	Topical corticosteroids
Avoid eczema triggers (house dust mites, irritants, dietary allergens, stress)	Skin care	Personal hygiene	Loose-fitting garments	Avoid sharing garments and towels	Regular cleaning of undergarments, socks, and caps

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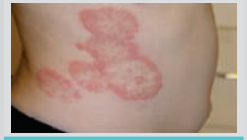	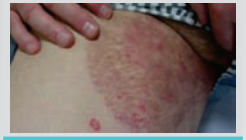	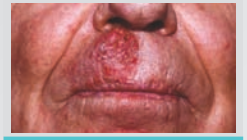	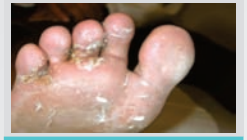	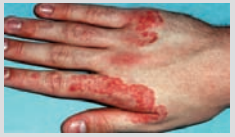
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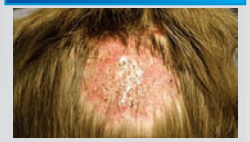	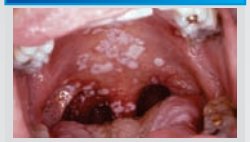			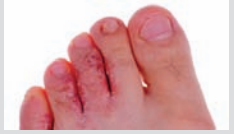
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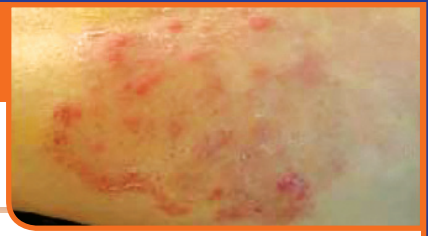


TINEA VERSICOLOR		TINEA CORPORIS
Fungal infection	Cause	Fungal infection
➤ Small, finely scaling patches; red, yellow, brown or pink color ➤ Darker or lighter than normal skin color	Differentiating signs/symptoms	➤ Red, annular, scaly patch; central clearing, active border ➤ **Commonly itchy**
➤ Back, chest, neck, arms, tummy	Location	➤ Body part other than bearded area, scalp, groin, hands or feet
➤ Visual inspection ➤ Laboratory investigation	Diagnosis	➤ Visual inspection ➤ Laboratory investigation
➤ Wood's light (**yellowish fluorescence**) ➤ KOH preparation; skin biopsy, culture	Lab test	➤ Wood's light examination (**no fluorescence**) ➤ KOH preparation; culture and antifungal sensitivity

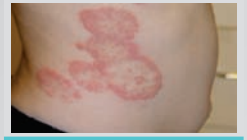
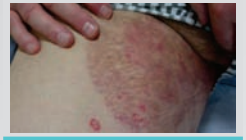
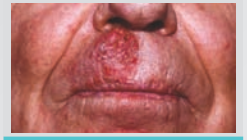
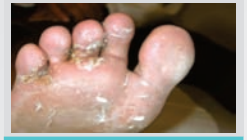
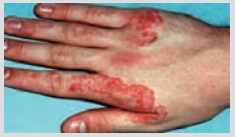
DIFFERENTIAL TREATMENT APPROACH

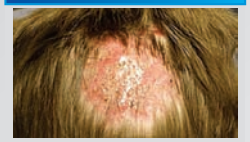
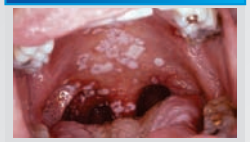
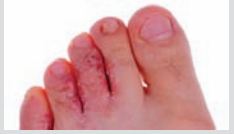
Topical and oral antifungals	Itraconazole 200 mg/day (seven days)	Medication	Topical and oral antifungals	Itraconazole 100-200 mg/day (1-2 weeks)	Topical corticosteroids
Remove excess oils and dirt from the skin	Keep dry in hot and humid weather	Personal hygiene	Loose-fitting garments	Avoid sharing garments and towels	Regular cleaning of undergarments, socks, and caps
Avoid excess exposure to sunlight					

In Tinea infection

AFDERM™

Itraconazole 100 / 200 mg Capsules

Tinea Corporis	Tinea Cruris	Tinea barbae	Tinea pedis	Tinea Manuum
				
200 mg / day 1-2 weeks	200 mg / day 1-2 weeks	100 mg OD for 2 weeks	100-200 mg / day 2-4 weeks	100 mg / twice a day for 15-30 days

Tinea Capitis	Oral Candidiasis	Tinea Versicolor / Pityriasis Versicolor	Recalcitrant Dermatophytosis	Tinea Unguium / Onychomycosis
				
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In Mixed Skin Infection

AFDERM-MN™

Nadifloxacin 1%, Miconazole Nitrate 2% & Mometasone Furoate 0.1% Cream

Dosage- Twice a Day for 1-2 weeks

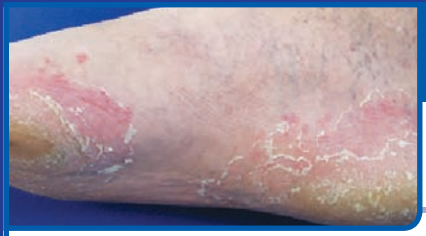
In Inflammatory Tinea Infection

AFDERM™ Plus

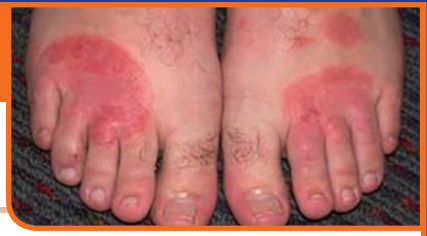
Clobetasol Propionate, Miconazole Nitrate & Neomycin Sulphate Cream

Dosage- Once a day for 1- 2 weeks

DIFFERENTIAL DIAGNOSIS



TINEA PEDIS	VS	CONTACT DERMATITIS
Fungal infection	Cause	Inflammatory disease
➤ Red and cracked skin between toes; scaly and often itchy ➤ Can extend to soles, heels and edges of the feet	Differentiating signs/symptoms	➤ Red rash; without clearly defined edges; swelling, stinging, pruritus ➤ **Asymmetric lesions**
➤ Usually between toes, on the soles, and on the sides of the feet	Location	➤ Body part in contact with the irritant (metals, latex rubber, scents, essential oils)
➤ History, clinical evaluation	Diagnosis	➤ Physical examination ➤ Positive exposure history to the irritant
➤ KOH wet mount, fungal culture	Lab test	➤ Patch testing (for relevant irritant and allergen) ➤ Limited role for skin biopsy



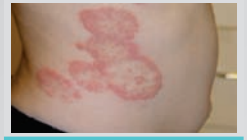
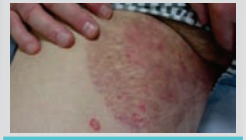
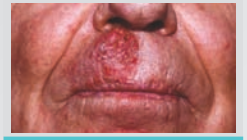
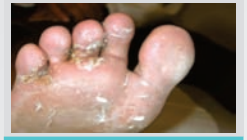
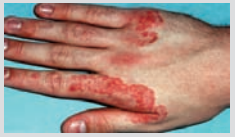
DIFFERENTIAL TREATMENT APPROACH

Topical and oral antifungals	Itraconazole	Moisture reduction and drying agents	Medication	Topical steroid	Ointments	Emollients
Dry the toes thoroughly after bathing	Dusting with good antiseptic powder on the feet after bathing		Personal hygiene	Avoid contact with the irritant	Appropriate clothing and gloves to protect against irritants	

In Tinea infection

AFDERM™

Itraconazole 100 / 200 mg Capsules

Tinea Corporis	Tinea Cruris	Tinea barbae	Tinea pedis	Tinea Manuum
				
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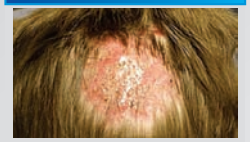
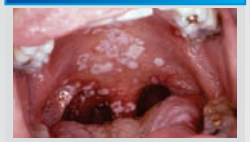
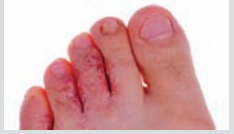
Tinea Capitis	Oral Candidiasis	Tinea Versicolor / Pityriasis Versicolor	Recalcitrant Dermatophytosis	Tinea Unguium / Onychomycosis
				
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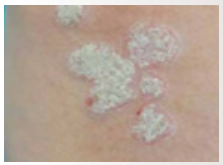
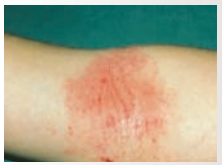
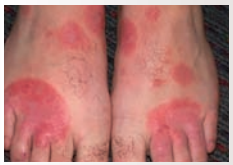
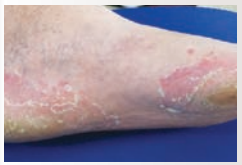
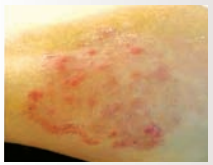
SUMMARY

	Psoriasis	Eczema (Atopic dermatitis)	Contact dermatitis	Tinea pedis	Tinea corporis	Tinea versicolor
CLINICAL PRESENTATION						
SIGNS AND SYMPTOMS	➤ Well-defined, raised red patches; adherent thick silvery scale ➤ Mild itching	➤ Itchy, red and inflamed skin ➤ May be scaly, oozing, or crusty	➤ Red rash, often without clearly defined edges ➤ Swelling, stinging, pruritus ➤ Asymmetric lesions	➤ Red and cracked skin between toes ➤ Scaly and often itchy ➤ Can extend to soles, heels and edges of the feet	➤ Red, annular, scaly patch ➤ Commonly itchy ➤ Central clearing, active border ➤ Single or multiple lesions	➤ Small, finely scaling patches ➤ Red, yellow, brown or pink color ➤ Darker or lighter than normal skin color
TREATMENT	➤ Light therapy, systemic therapy ➤ Itraconazole (reduces skin irritation); dosage: 200 mg/day	➤ Itraconazole (non-response to topical steroids); dosage: 100-200 mg/day ➤ Corticosteroids, systemic treatments	➤ Topical steroid ➤ Ointments ➤ Emollients	➤ Topical and oral antifungals ➤ Itraconazole ➤ Moisture reduction and drying agents	➤ Topical and oral antifungals ➤ Itraconazole 100-200 mg/day (1-2 weeks)	➤ Topical and oral antifungals ➤ Itraconazole 200 mg/day (seven days)

References: **1.** Psoriasis vs. Eczema: How to Tell the Difference. Available at: https://www.webmd.com/skin-problems-and-treatments/psoriasis/psoriasis-or-eczema#1-. Accessed on 09-01-2019. **2.** Atopic dermatitis. Available at: https://online.epocrates.com/diseases/8735/Atopic-dermatitis/Differential-Diagnosis. Accessed on 09-01-2019. **3.** Thomsen SF. *ISRN Allergy.* 2014;2014:354250. **4.** Avner S, Nathansohn N, Trau H, *et al. JAAD.* 2005;52(3):6. **5.** Clarke P. *RACGP.* 2011; 40(7): 468-73. **6.** Smith CH, Barker JN. *BMJ.* 2006;333(7564):380-4. **7.** Kim WB, Jerome D, Yeung J. *Can Fam Physician.* 2017;63(4):278-285. **8.** Faergemann J, Diehl U, Bergfelt L, *et al. Acta Derm Venereol.* 2003;83(6):438-41. **9.** Allergic contact dermatitis: Overview. Available at: https://www.ncbi.nlm.nih.gov/books/NBK447113/. Accessed on 09-01-2019. **10.** Dermatitis, Contact. Available at: https://www.ncbi.nlm.nih.gov/books/NBK459230/. Accessed on 09-01-2019. **11.** Correale CE, Walker C, Murphy L, *et al. Am Fam Physician.* 1999;60(4):1191-8. **12.** Ely JW, Rosenfeld S, Stone MS, *et al. Am Fam Physician.* 2014;90(10):702-11. **13.** Hsu S, Le EH, Khoshevis MR. *Am Fam Physician.* 2001;64(2):289-97. **14.** Evidence and recommendations on tinea infections. Available at: https://www.ncbi.nlm.nih.gov/books/NBK305423/. Accessed on 09-01-2019. **15.** Noble SL, Forbes RC. *Am Fam Physician.* 19981;58(1):163-74. **16.** Boonk W, de Geer D, de Kreek E, *et al. Mycoses.* 1998;41(11-12):509-14. **17.** Pityriasis rosea. Available at: https://online.epocrates.com/u/2935279/Pityriasis+rosea. Accessed on 09-01-2019. **18.** Tinea Pedis. Available at: https://emedicine.medscape.com/article/1091684-overview. Accessed on 09-01-2019. **19.** Usatine RP, Riojas M. *Am Fam Physician.* 2010;82(3):249-55. **20.** Tinea Pedis. Available at: https://www.msdmanuals.com/professional/dermatologic-disorders/fungal-skin-infections/tinea-pedis. Accessed on 09-01-2019.

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In Tinea infection

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Itraconazole 100 / 200 mg Capsules

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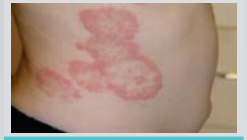	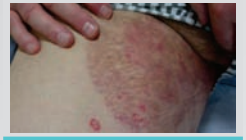	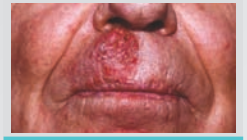	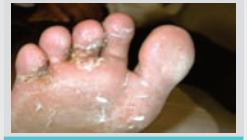	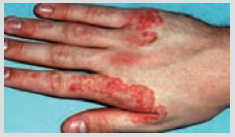
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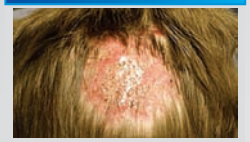	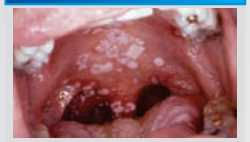			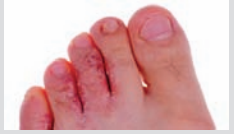
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