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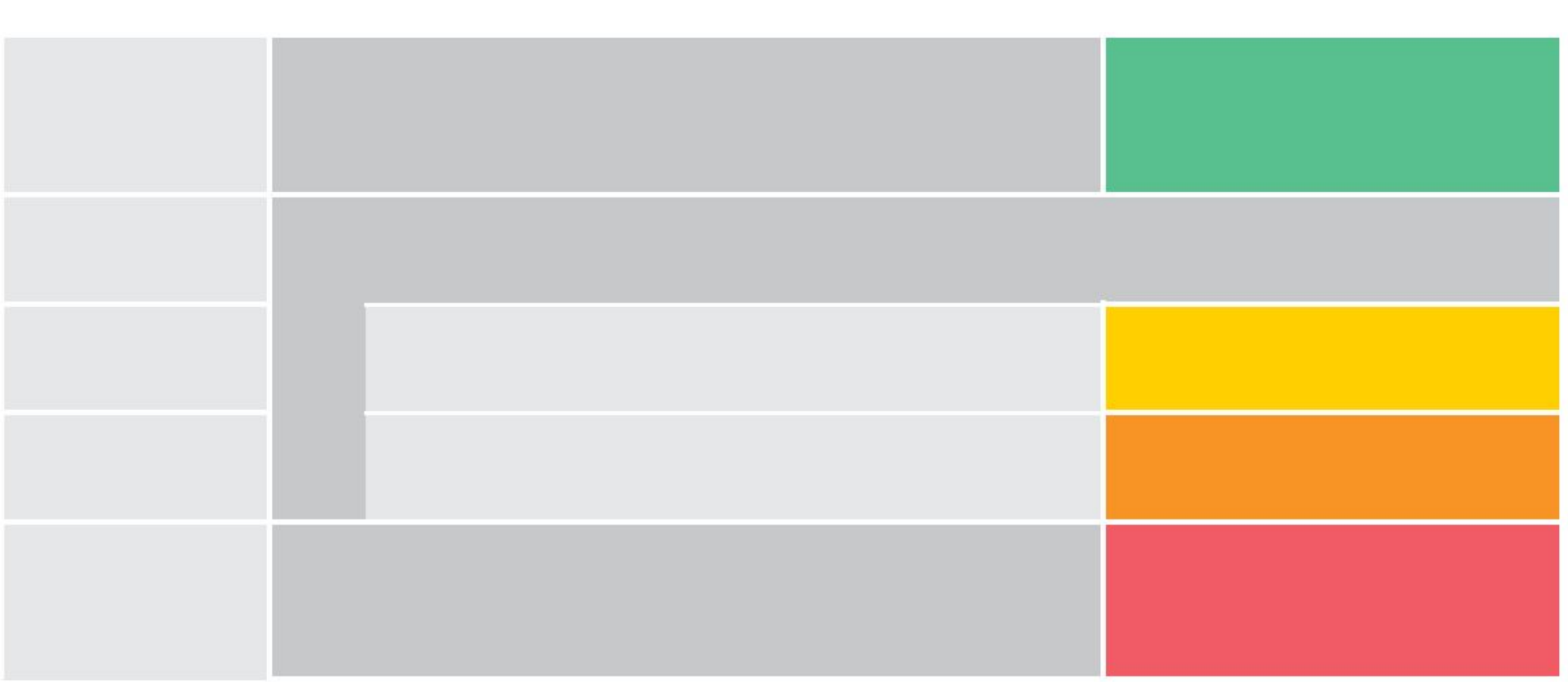

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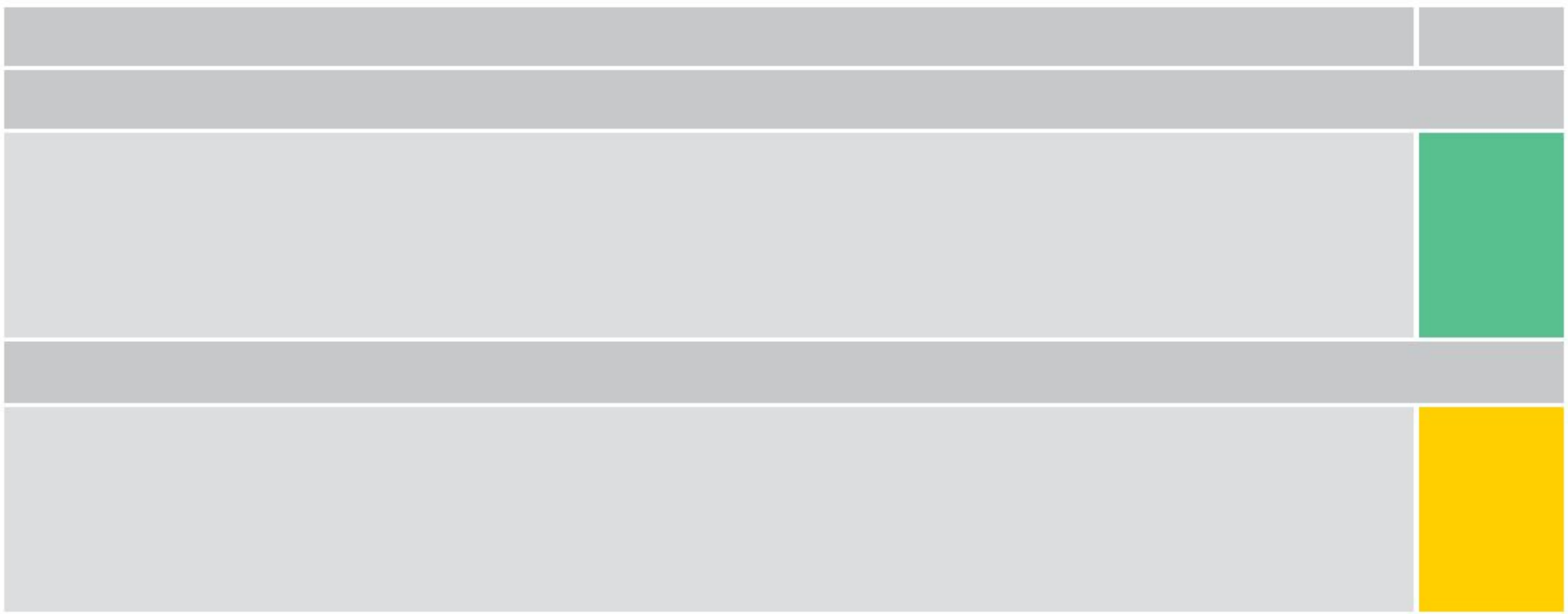

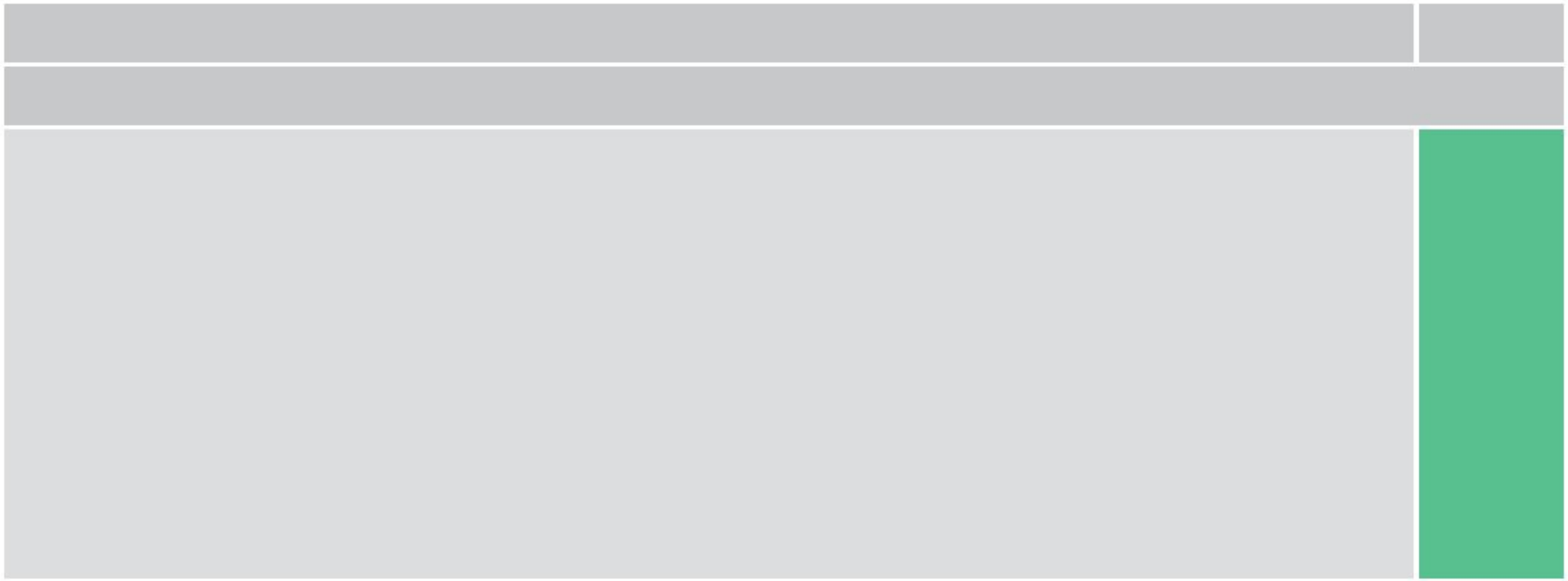

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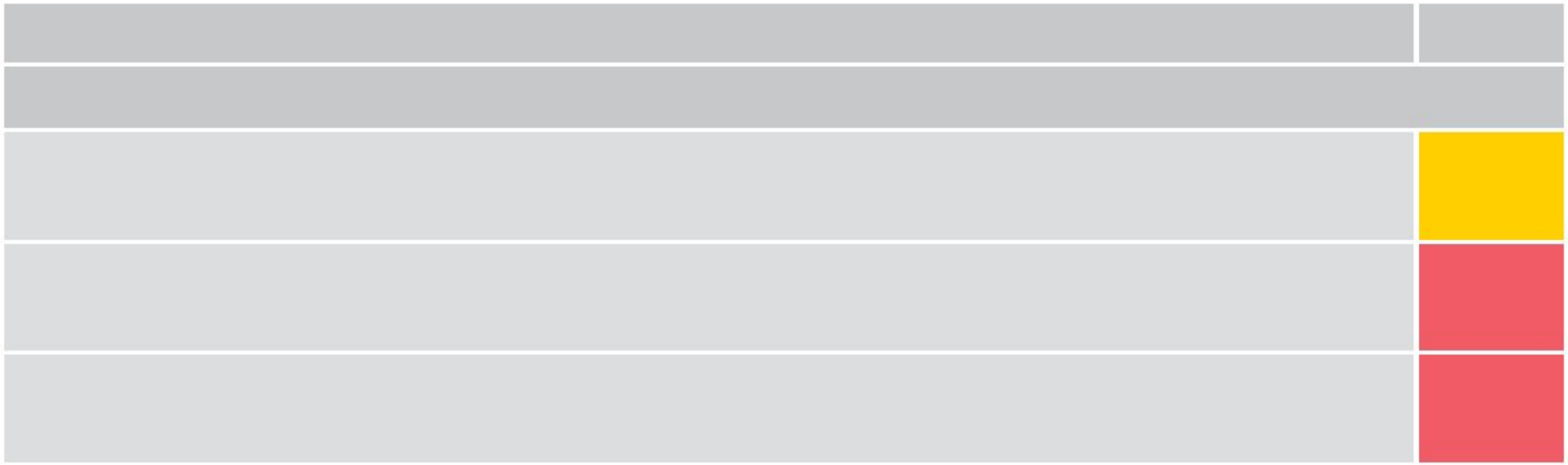

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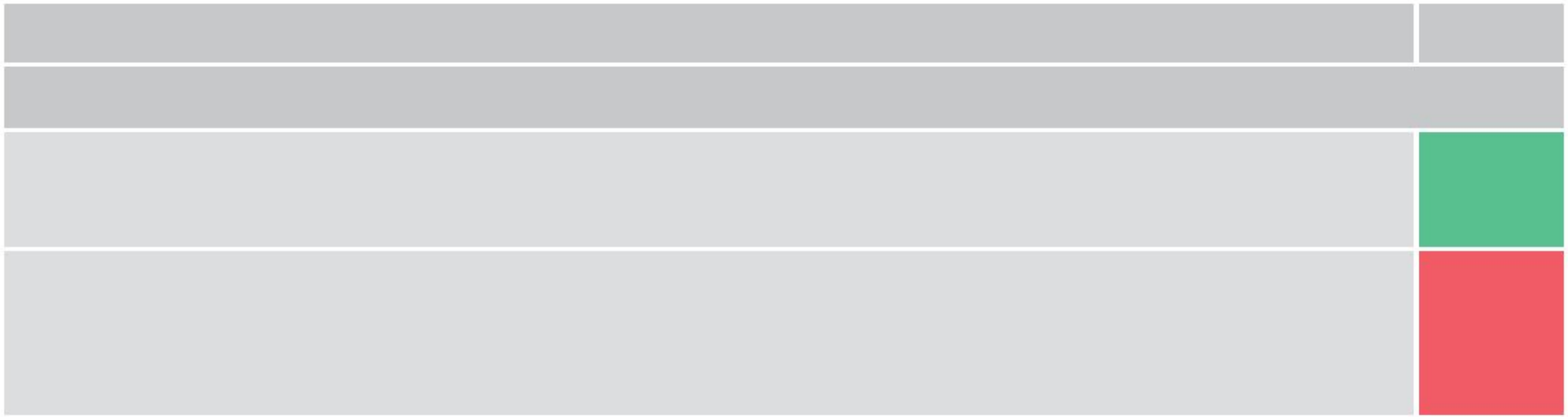

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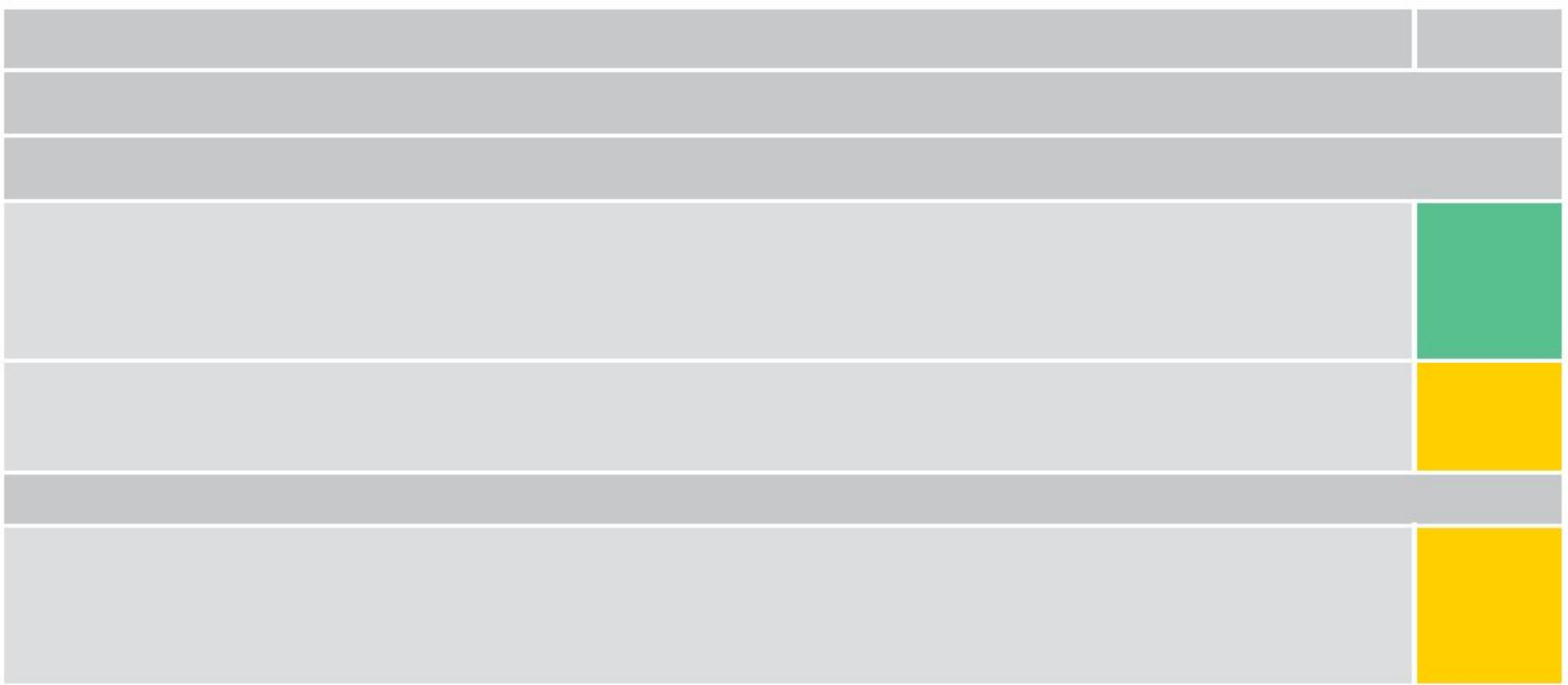

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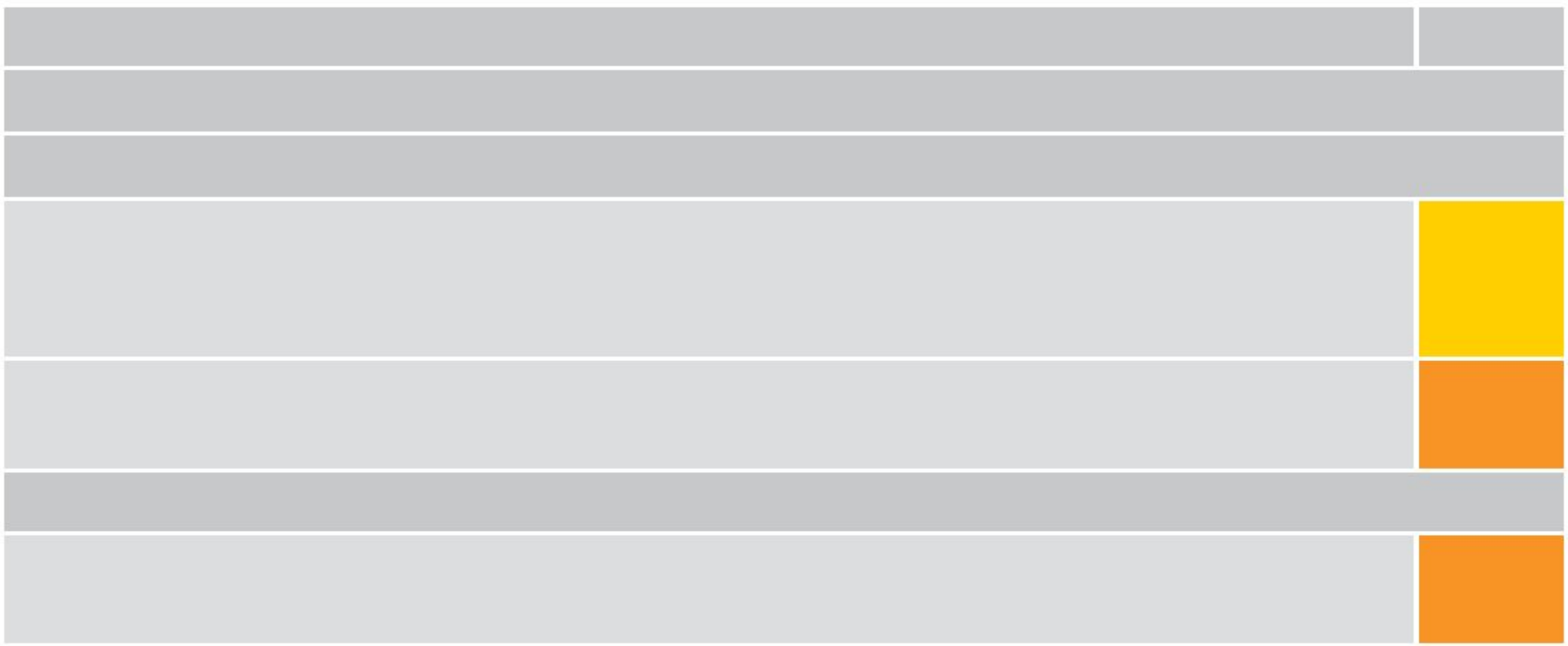

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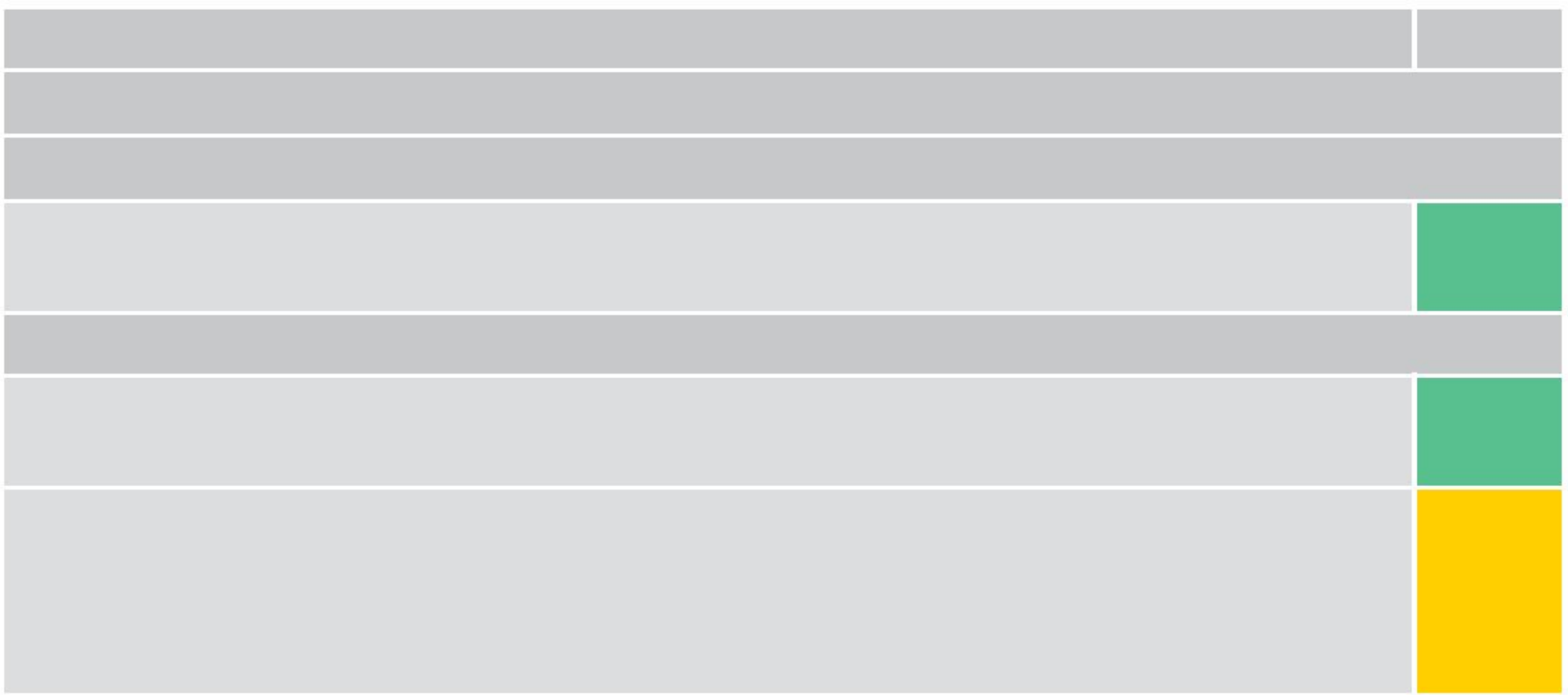

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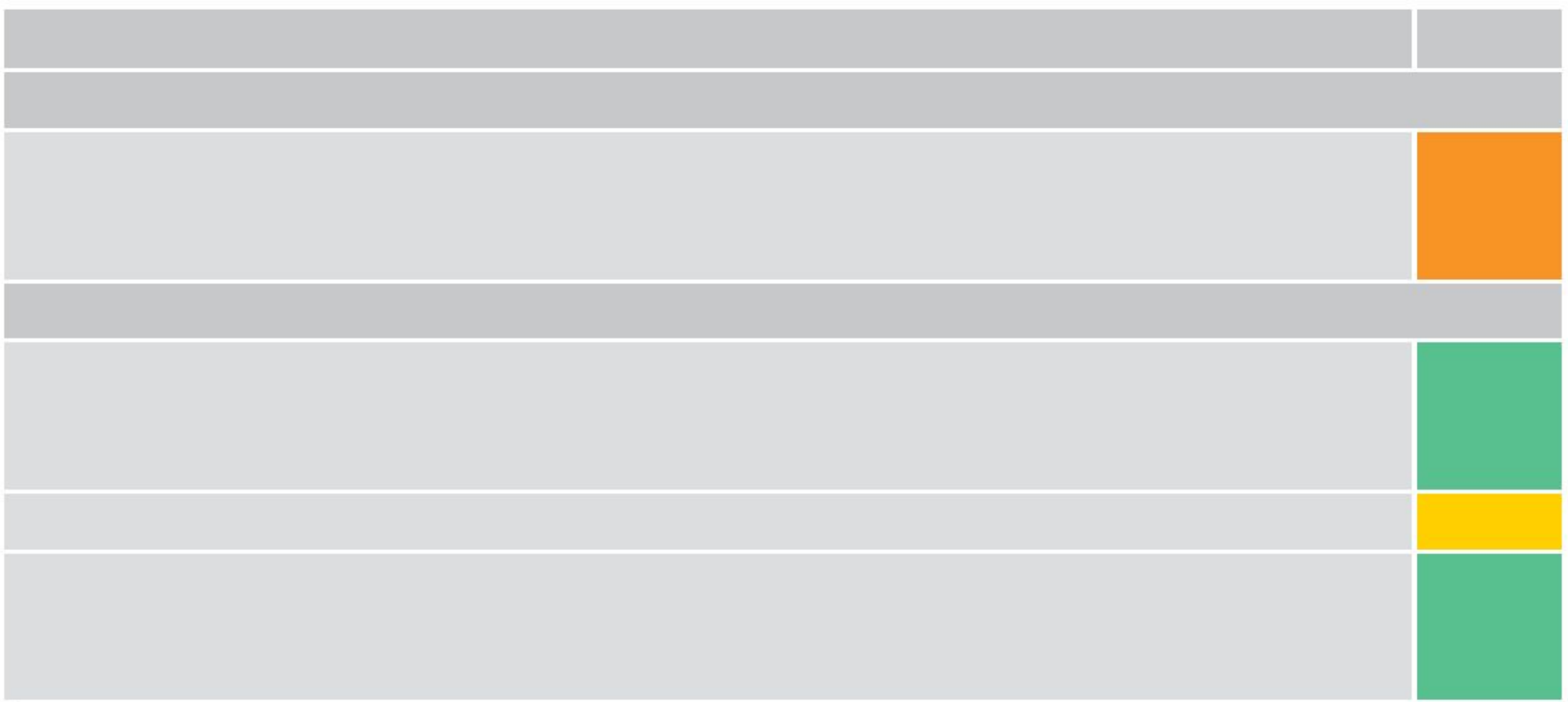

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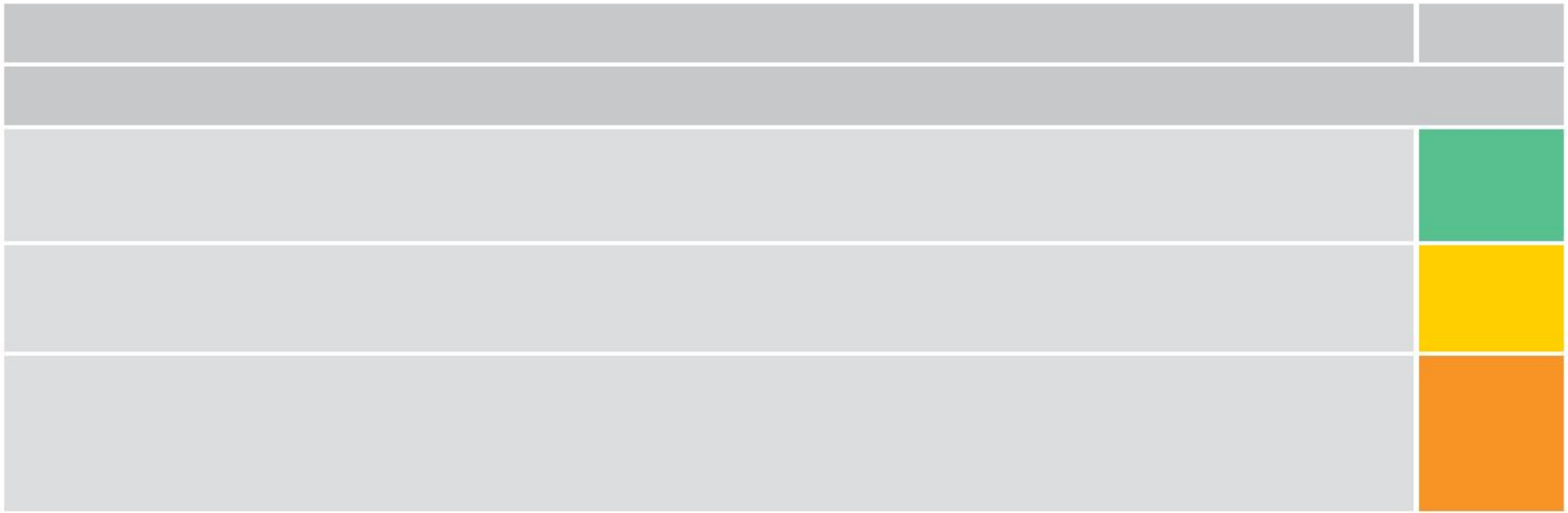

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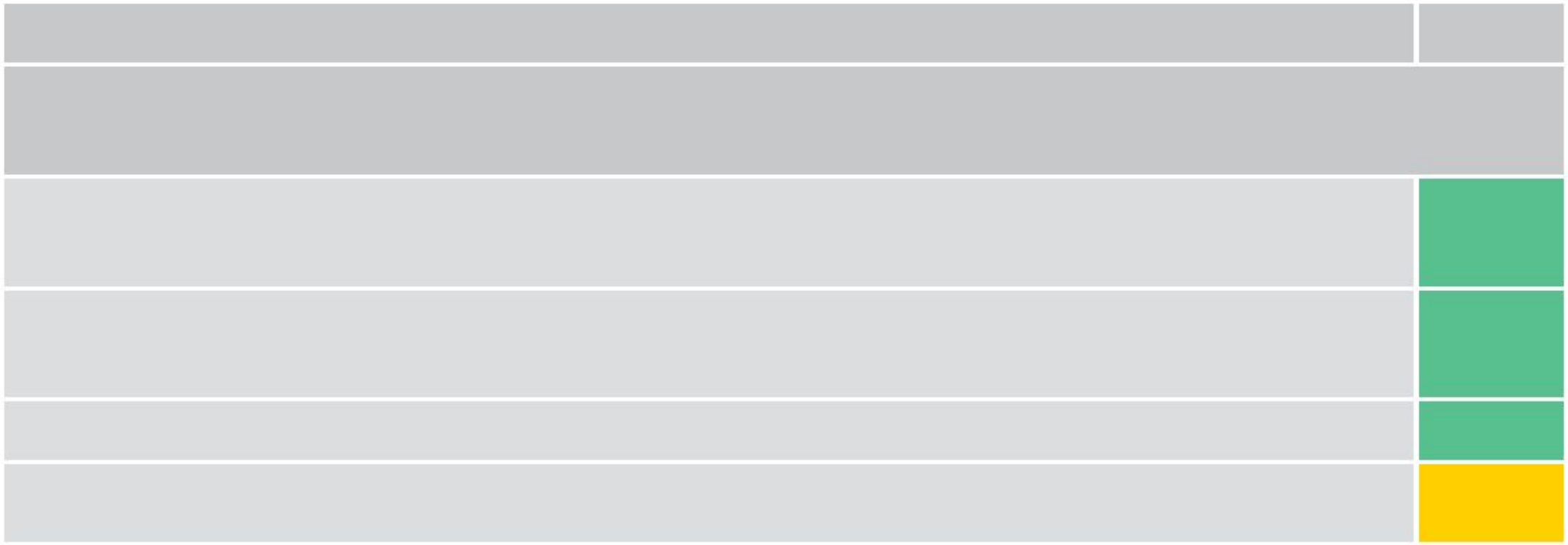

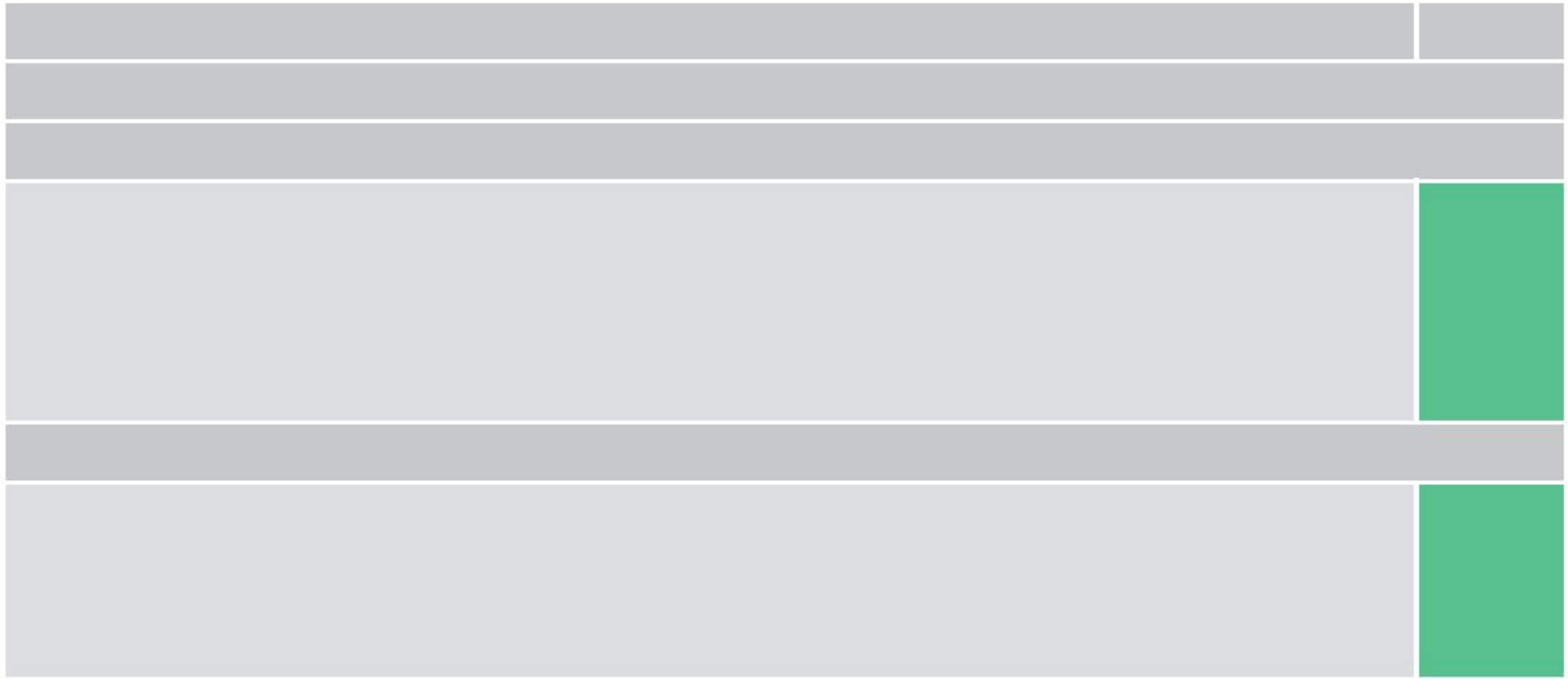

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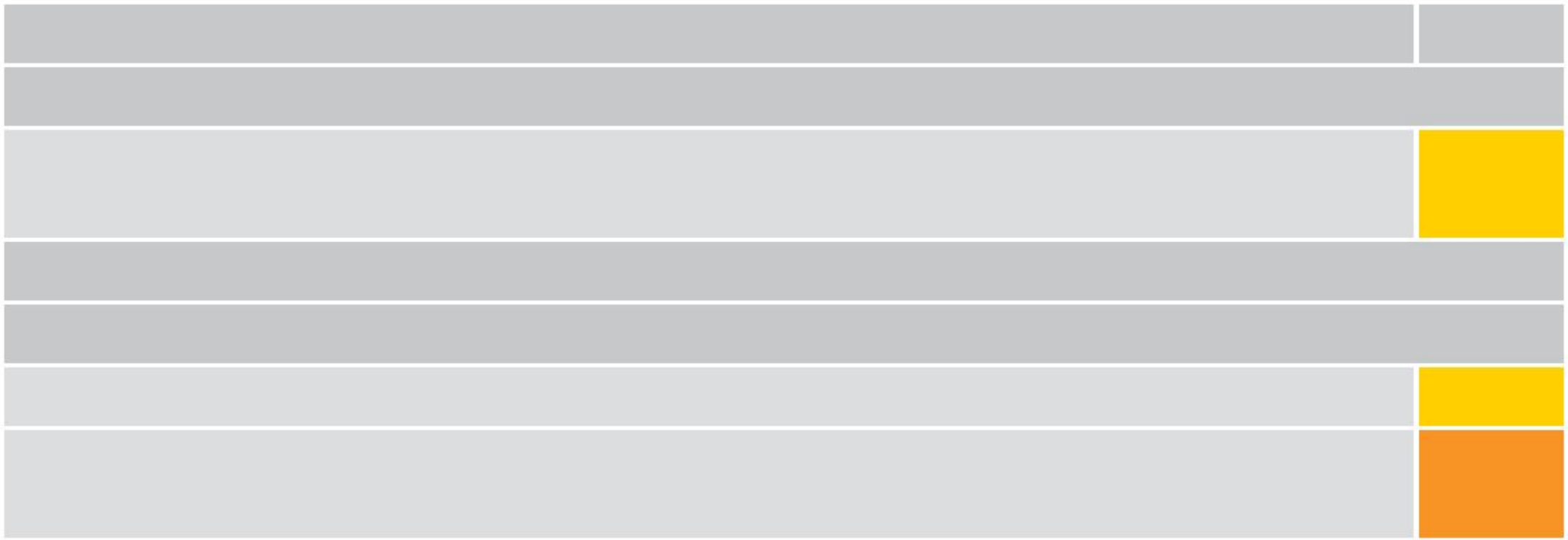

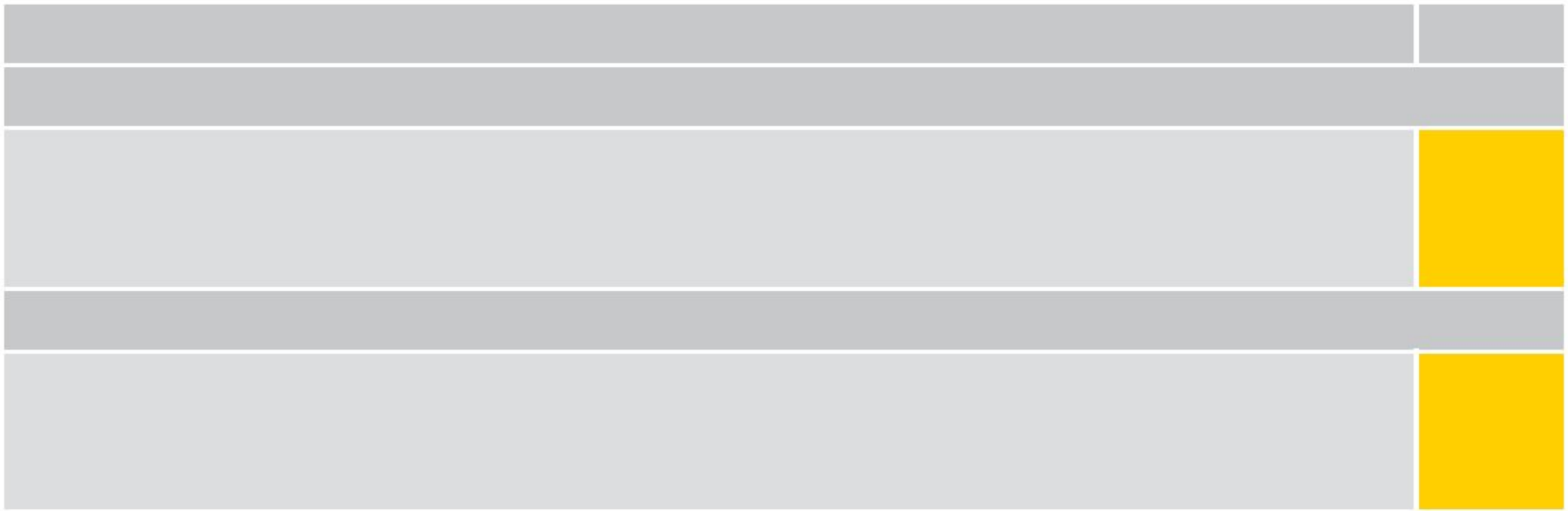

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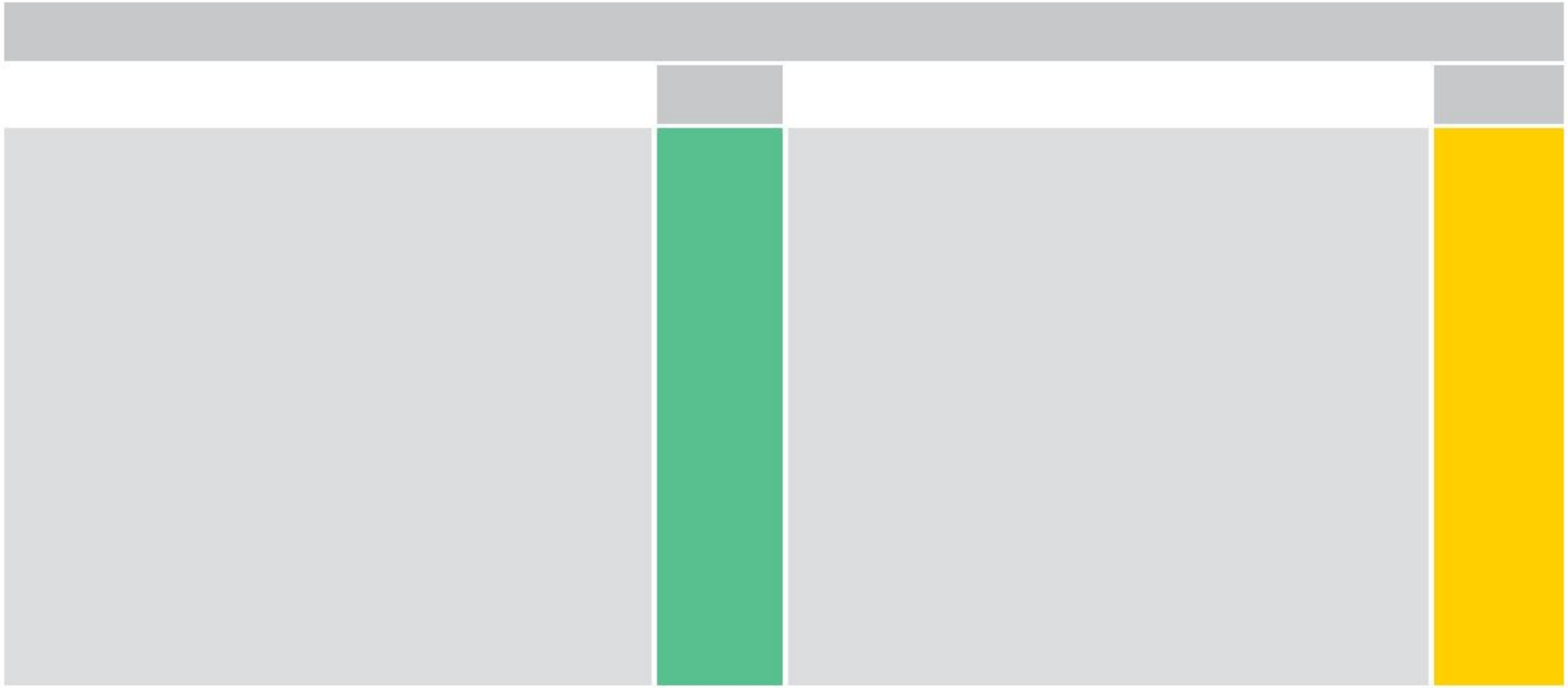

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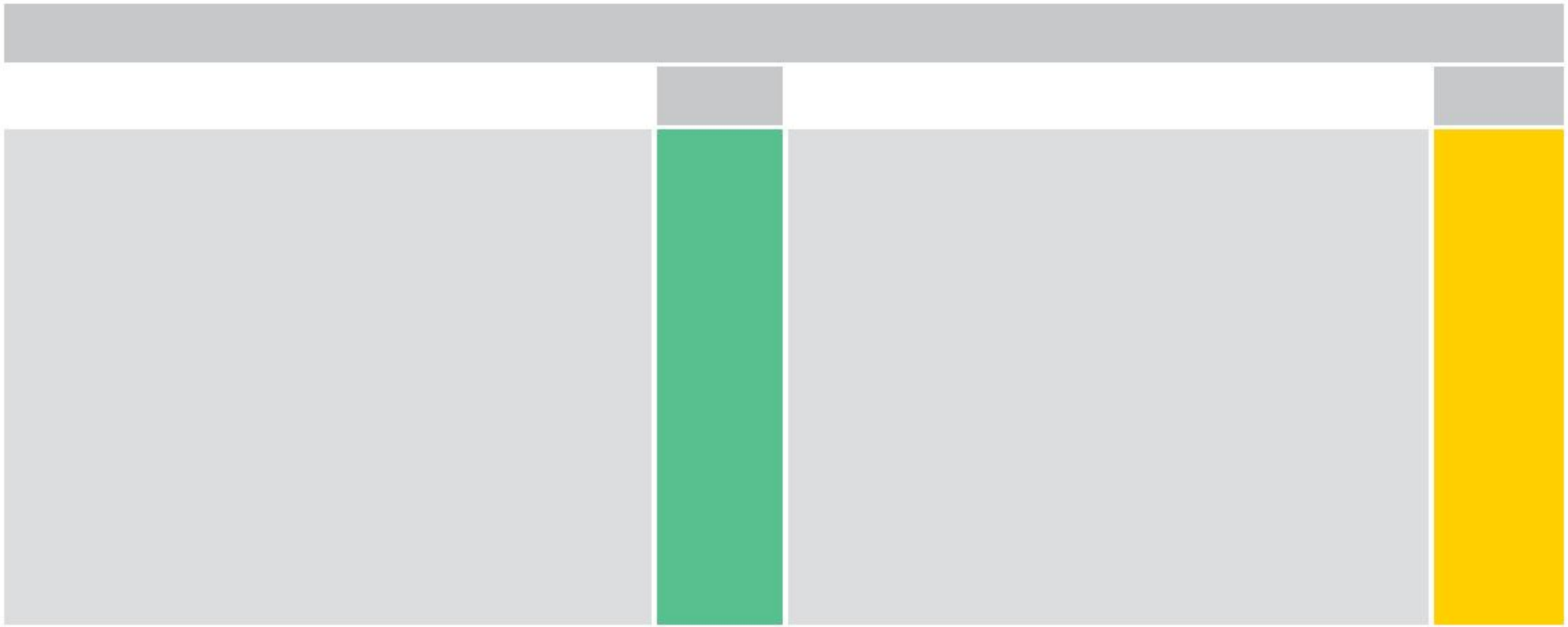

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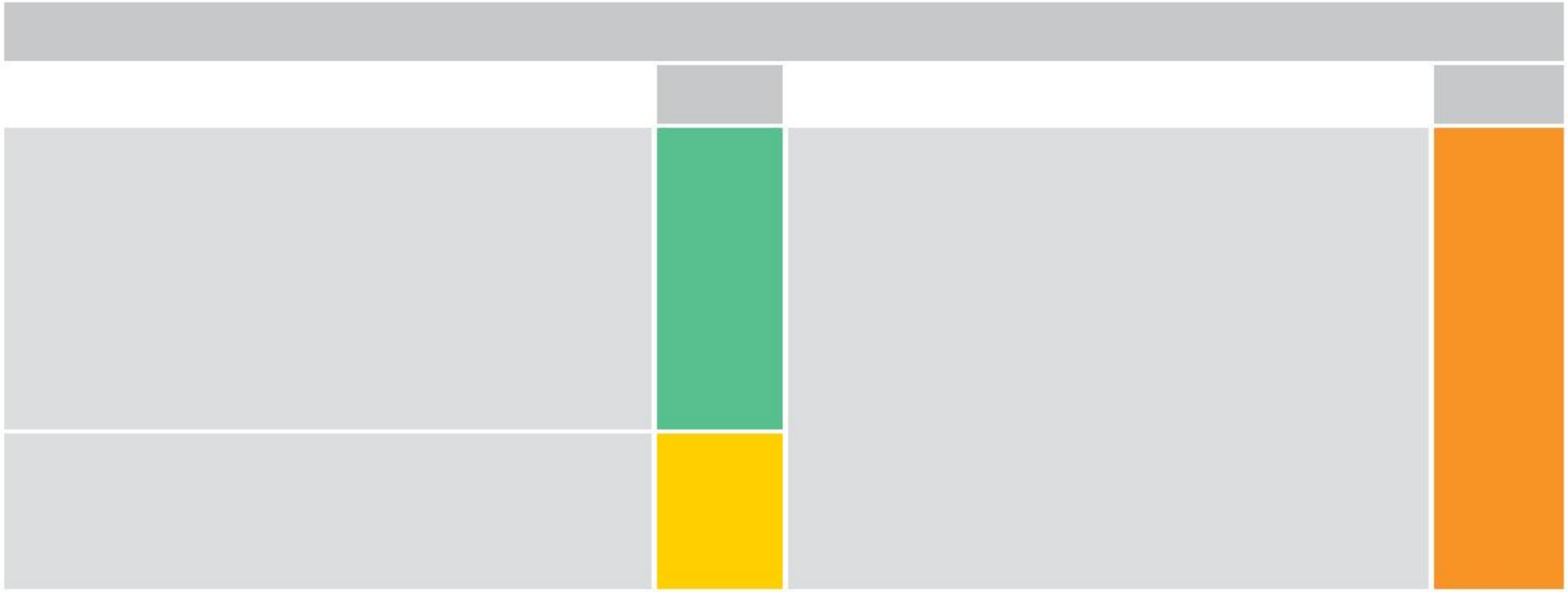

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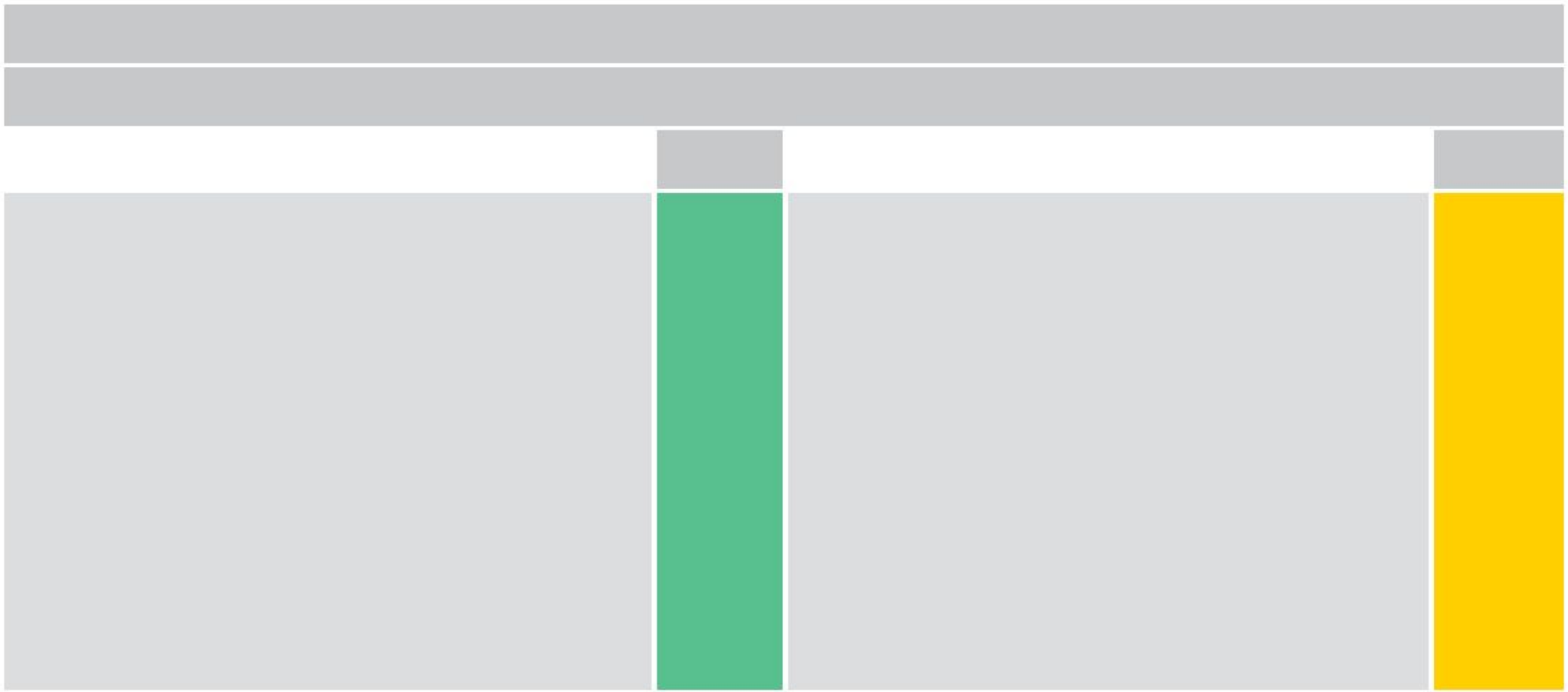

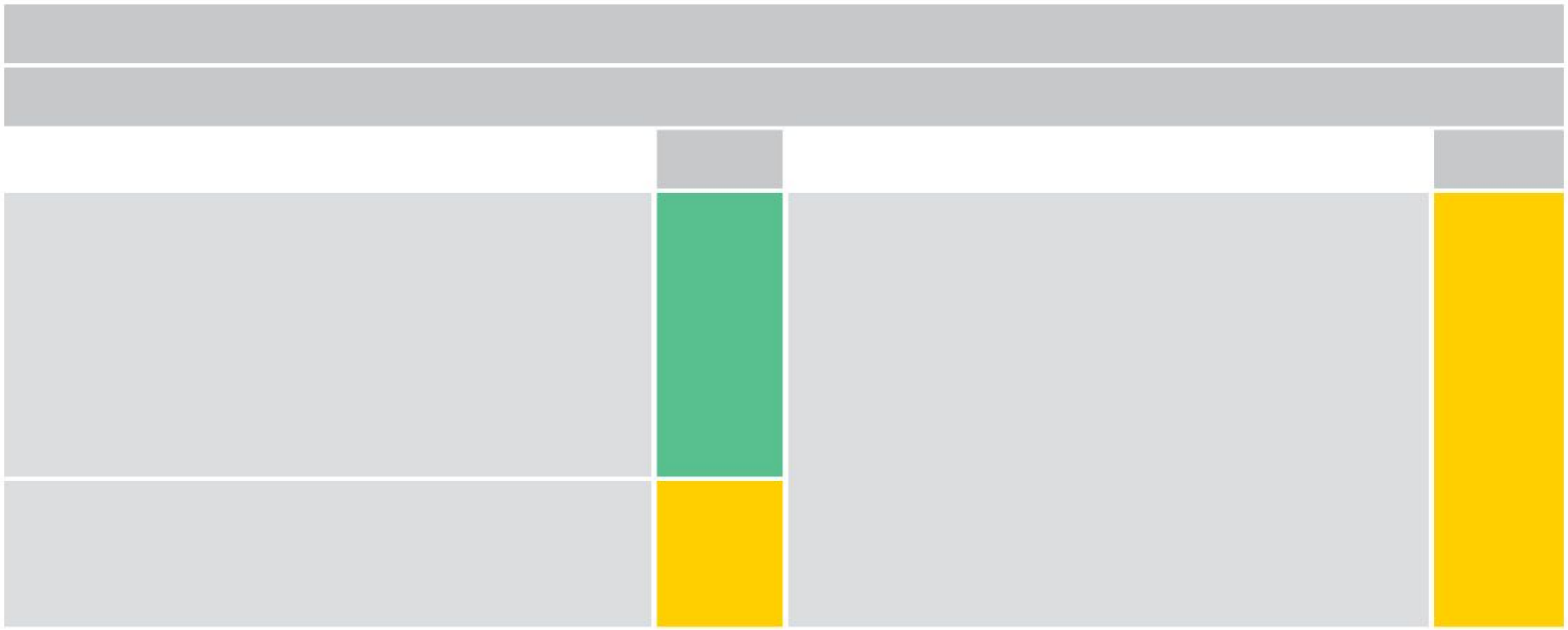

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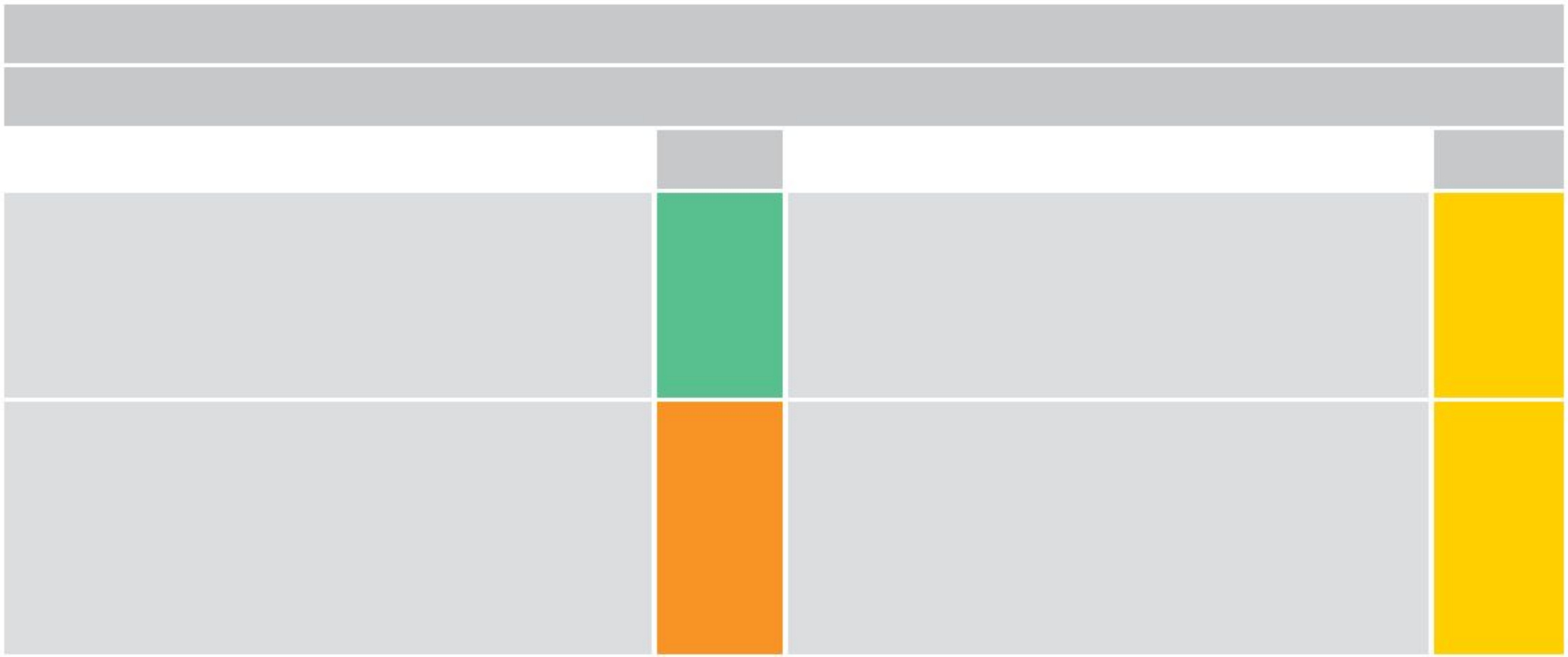

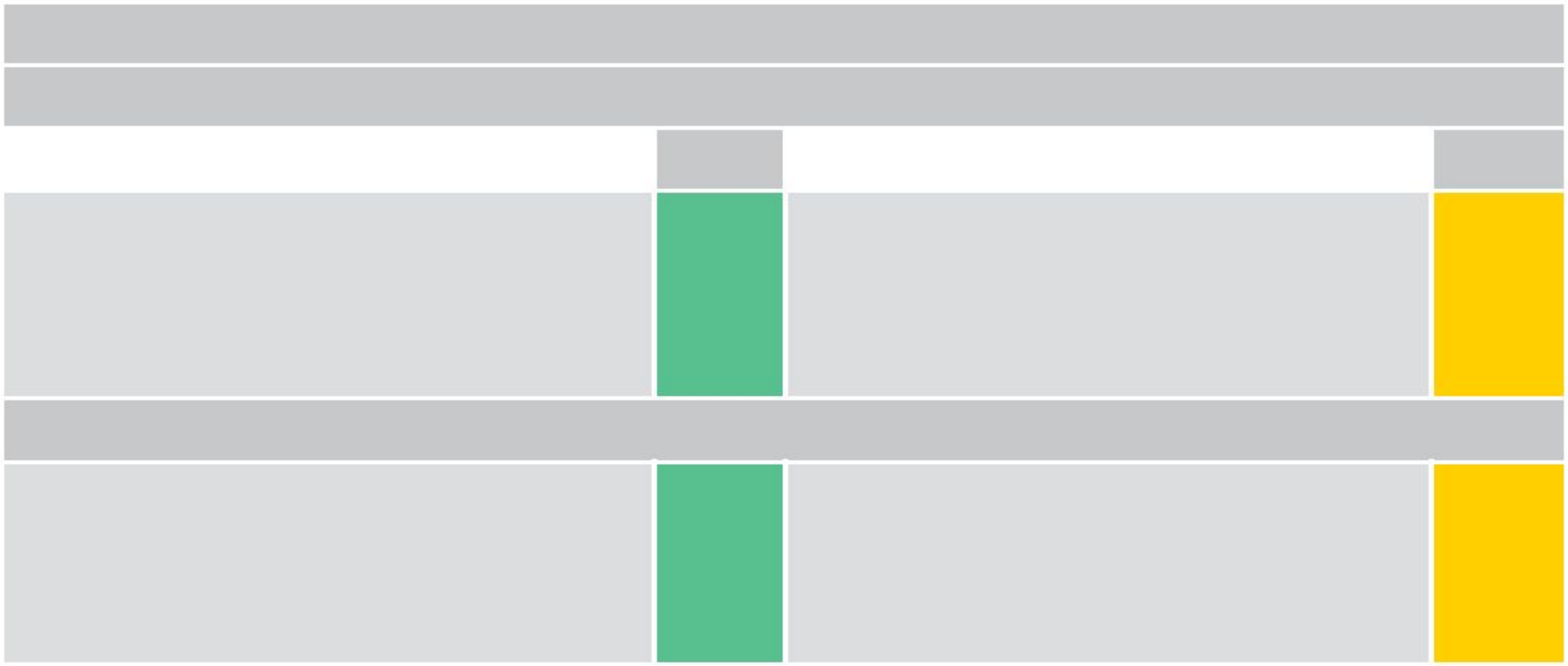

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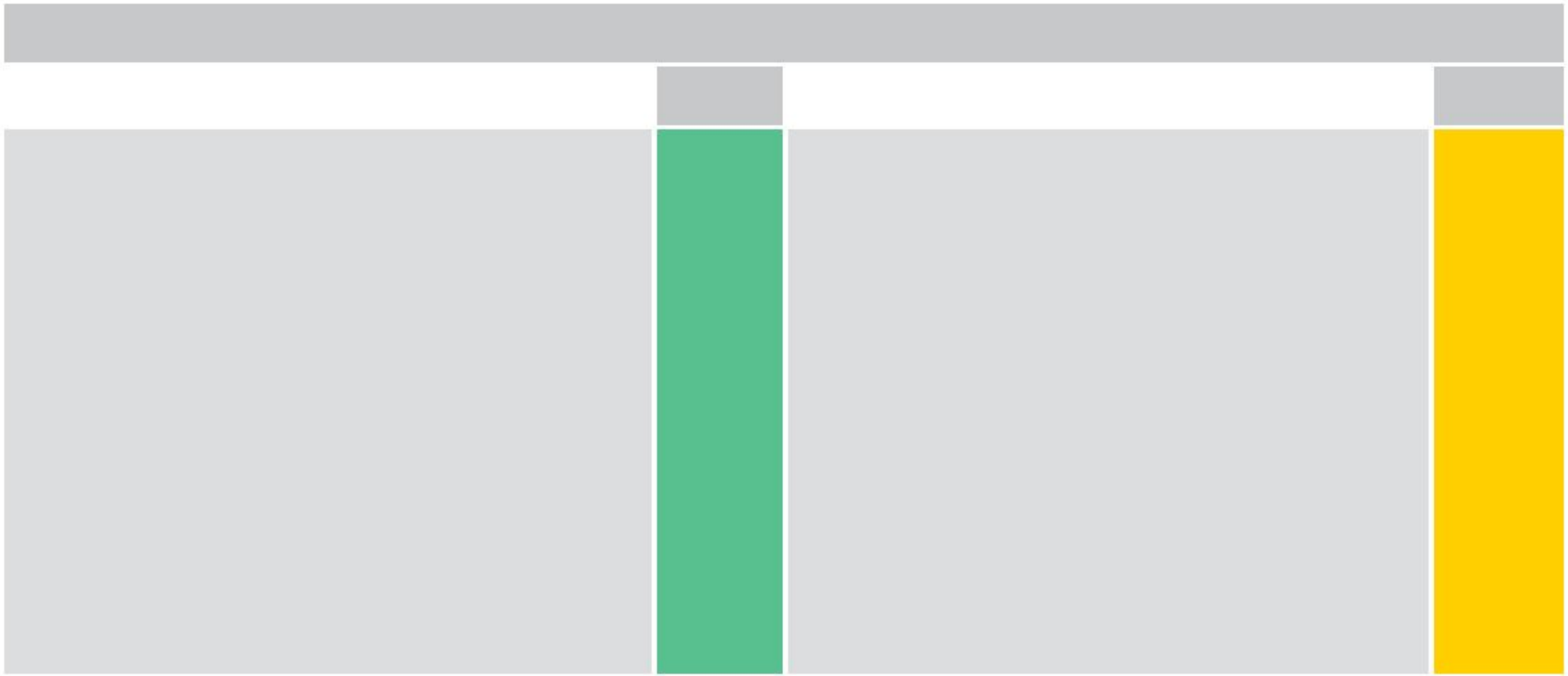

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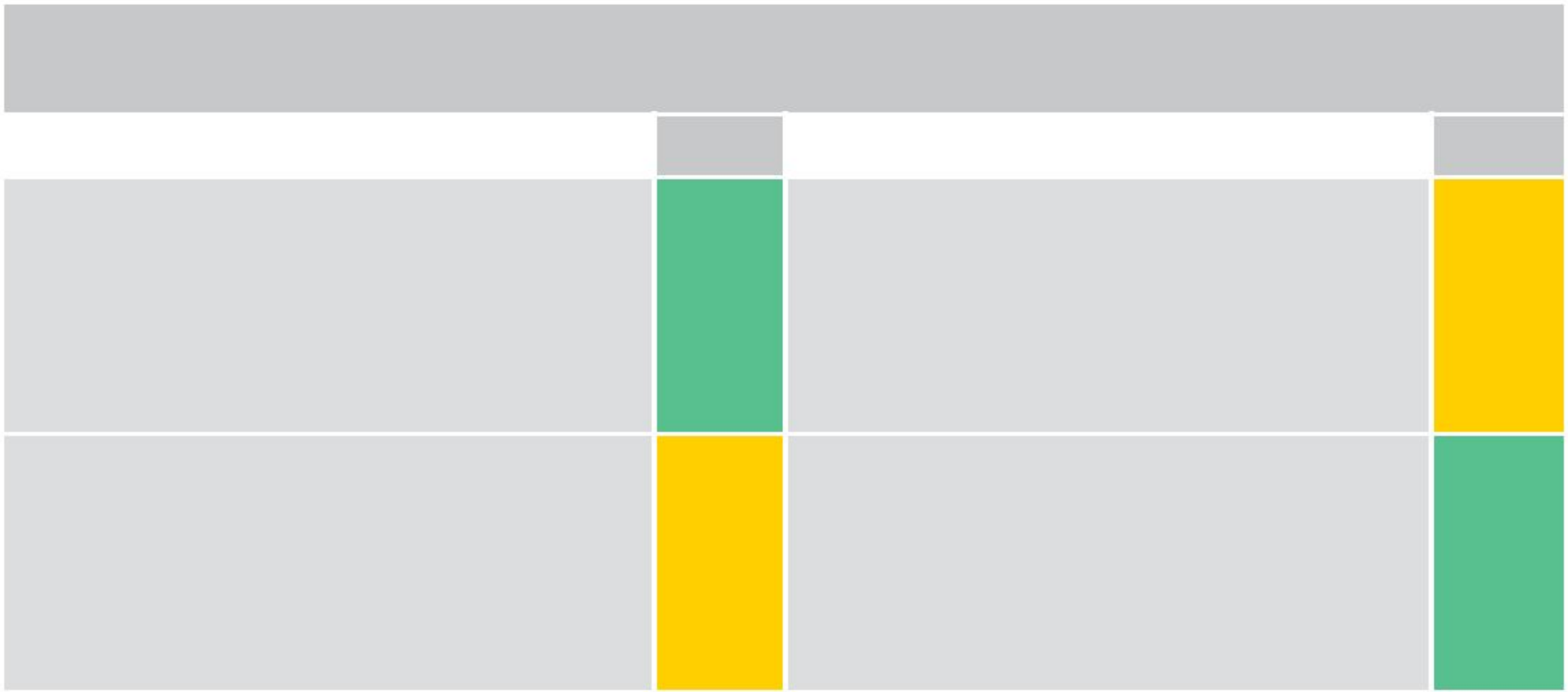

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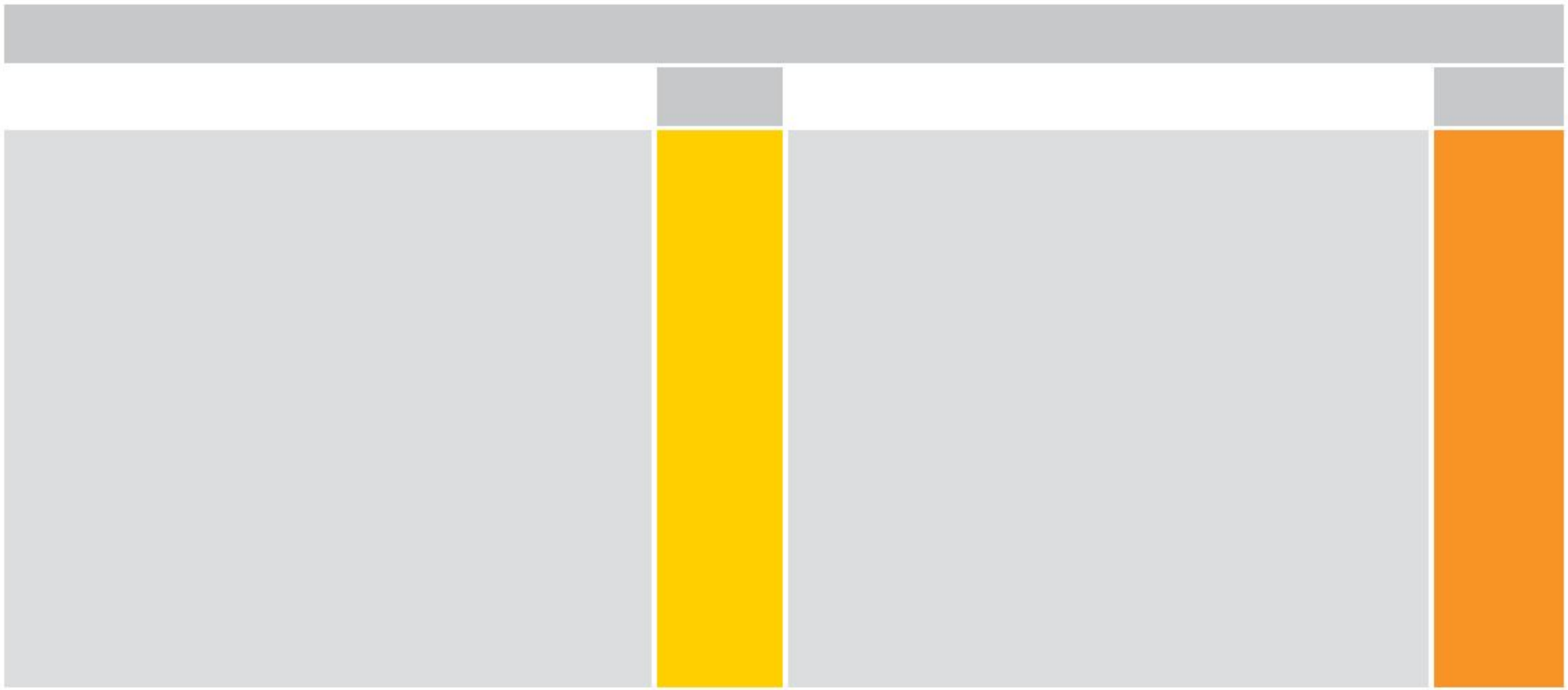

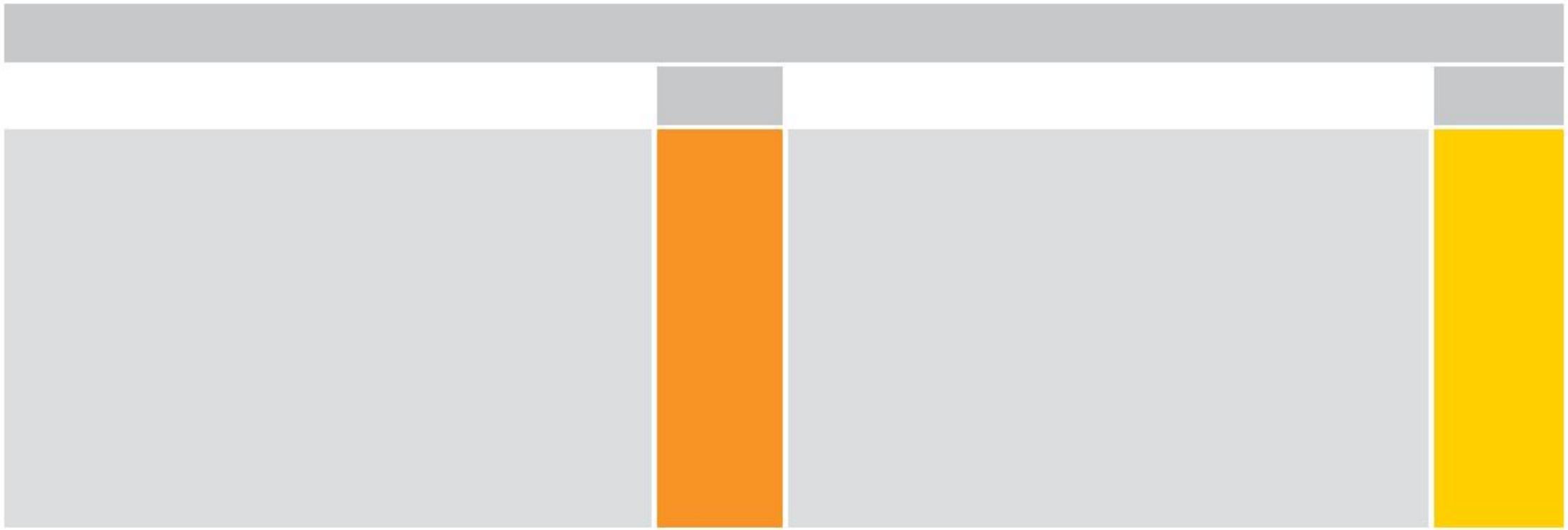

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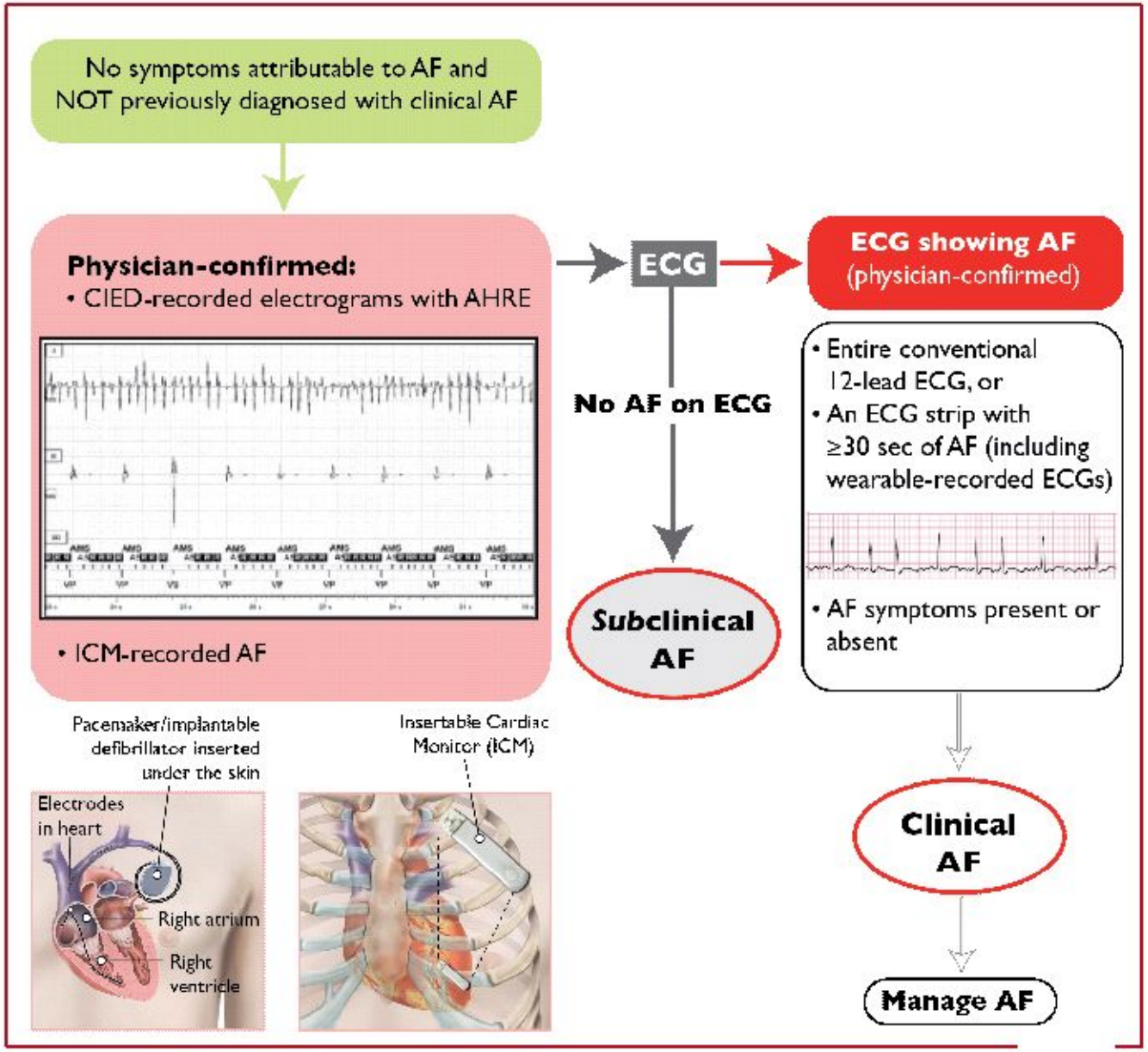

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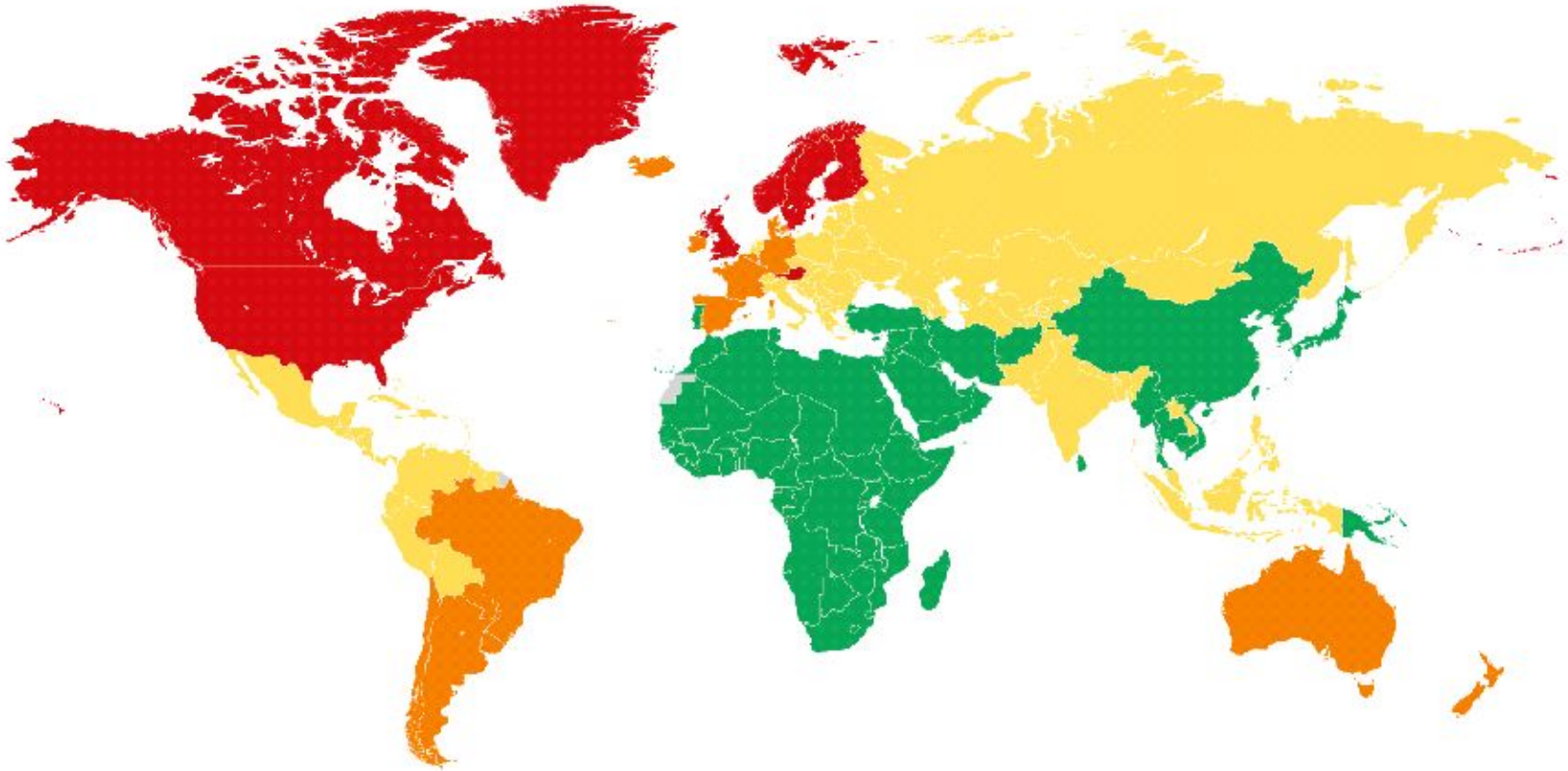
GLOBAL PREVALENCE OF AF

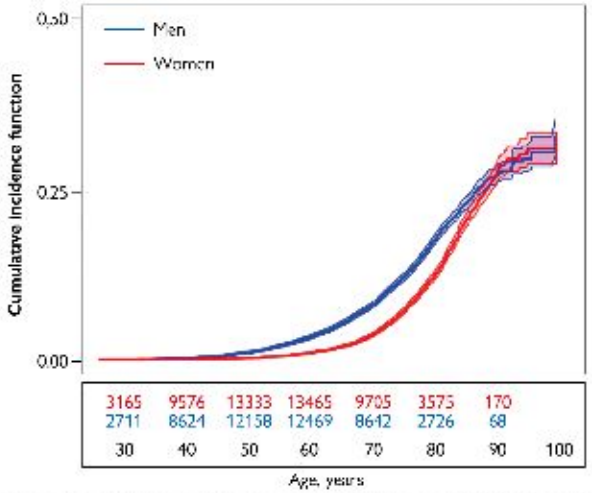
(globally, 43.6 million individuals had prevalent AF/AFL in 2016)



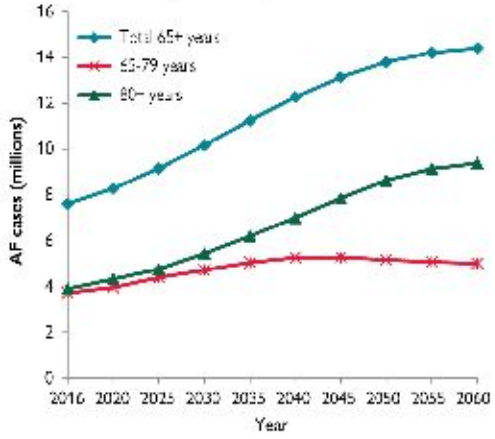
LIFETIME RISK for AF
1 in 3 individuals

of European ancestry
at index age of 55 years
37.0% (34.3% to 39.6%)

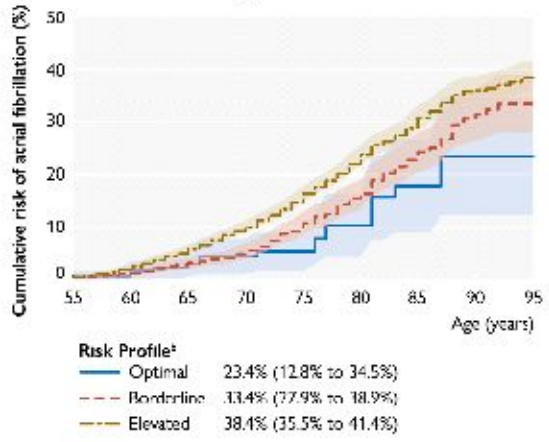
AF is more common in males
Cumulative incidence curves and 95% CIs
for AF in women and men with death as a competing risk



Projected increase in AF prevalence among elderly in EU 2016-2060



Lifetime risk of AF increases with increasing risk factor burden[a]



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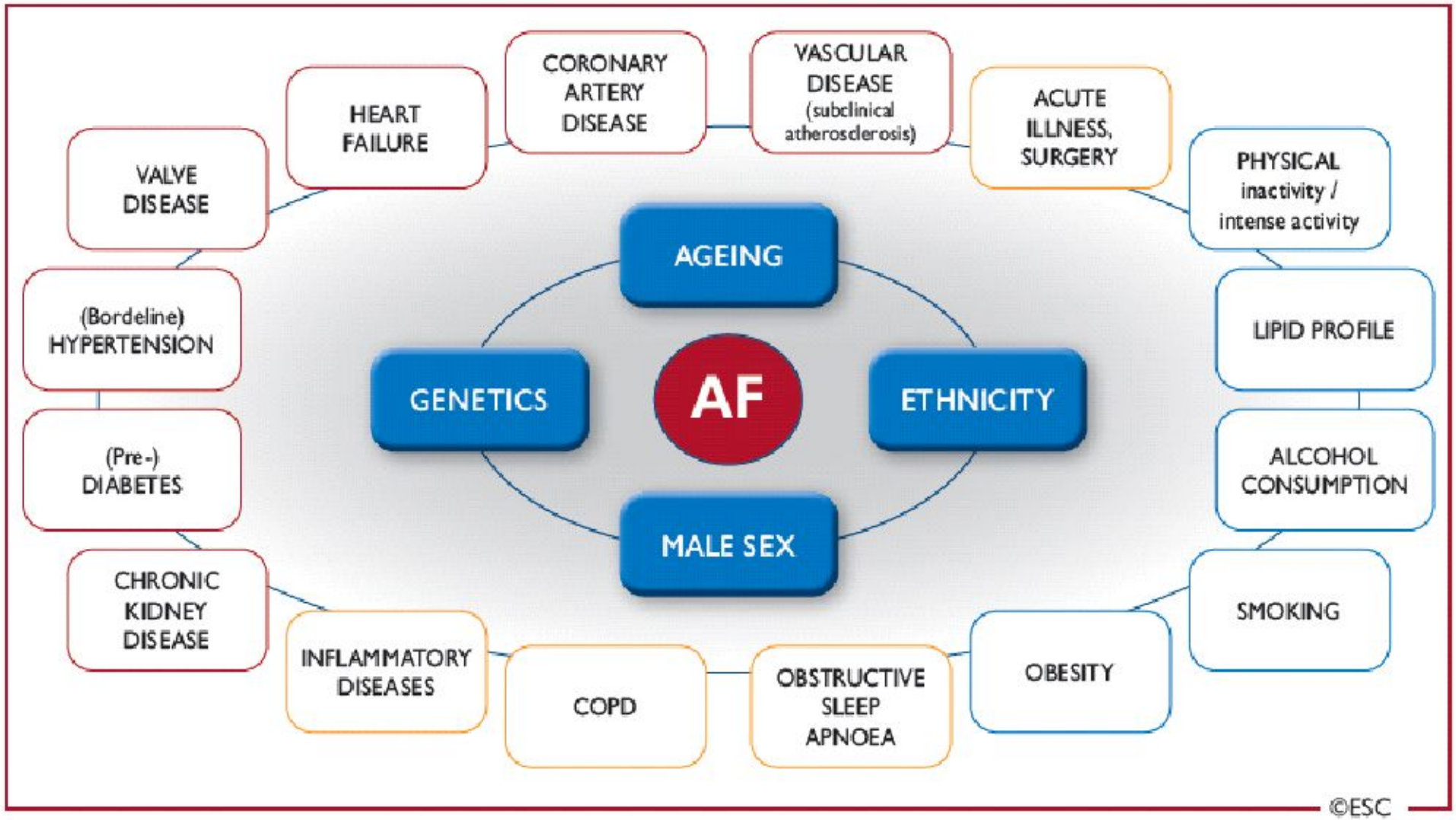
AF
AGEING
GENETICS
ETHNICITY
MALE SEX
HEART FAILURE
CORONARY ARTERY DISEASE
VASCULAR DISEASE (subclinical atherosclerosis)
ACUTE ILLNESS, SURGERY
VALVE DISEASE
PHYSICAL inactivity / intense activity
(Bordeline) HYPERTENSION
LIPID PROFILE
(Pre-) DIABETES
ALCOHOL CONSUMPTION
CHRONIC KIDNEY DISEASE
SMOKING
INFLAMMATORY DISEASES
COPD
OBSTRUCTIVE SLEEP APNOEA
OBESITY
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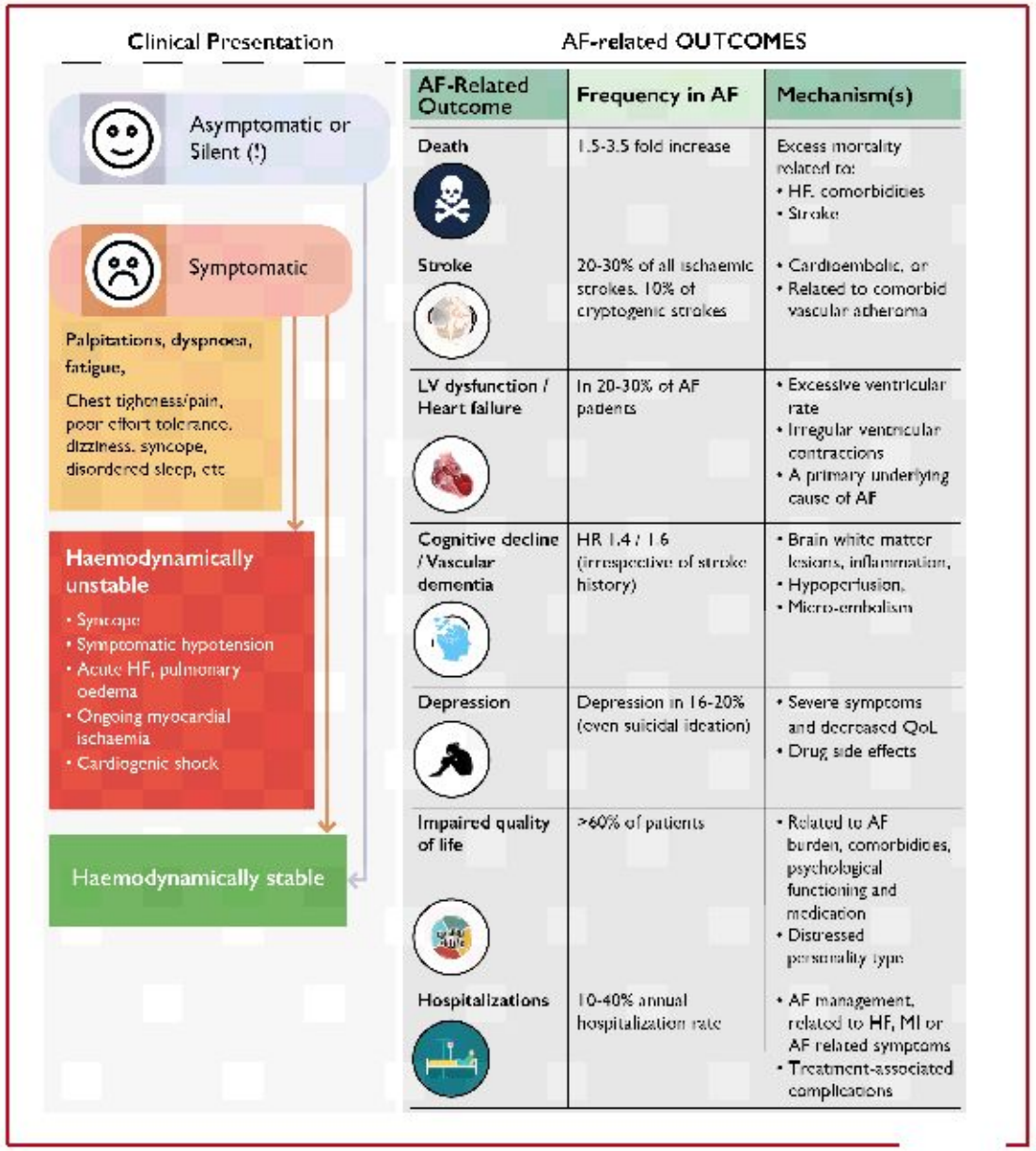

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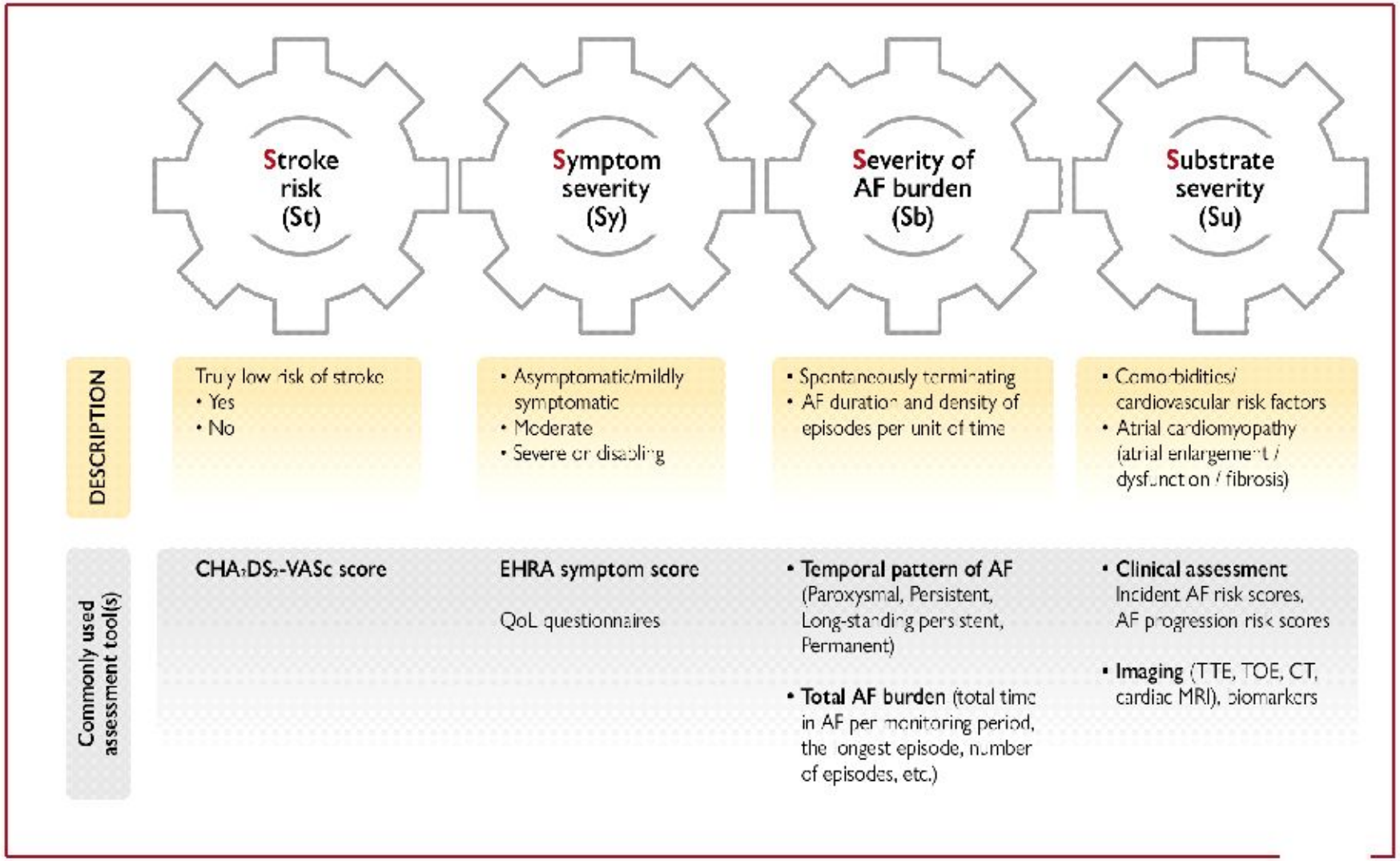
Stroke risk (St)
Symptom severity (Sy)
Severity of AF burden (Sb)
Substrate severity (Su)
DESCRIPTION
Truly low risk of stroke
• Yes
• No
• Asymptomatic/mildly symptomatic
• Moderate
• Severe or disabling
• Spontaneously terminating
• AF duration and density of episodes per unit of time
• Comorbidities/ cardiovascular risk factors
• Atrial cardiomyopathy (atrial enlargement / dysfunction / fibrosis)
Commonly used assessment tool(s)
CHA2DS2-VASc score
EHRA symptom score
QoL questionnaires
• Temporal pattern of AF (Paroxysmal, Persistent, Long-standing persistent, Permanent)
• Total AF burden (total time in AF per monitoring period, the longest episode, number of episodes, etc.)
• Clinical assessment Incident AF risk scores, AF progression risk scores
• Imaging (TTE, TOE, CT, cardiac MRI), biomarkers

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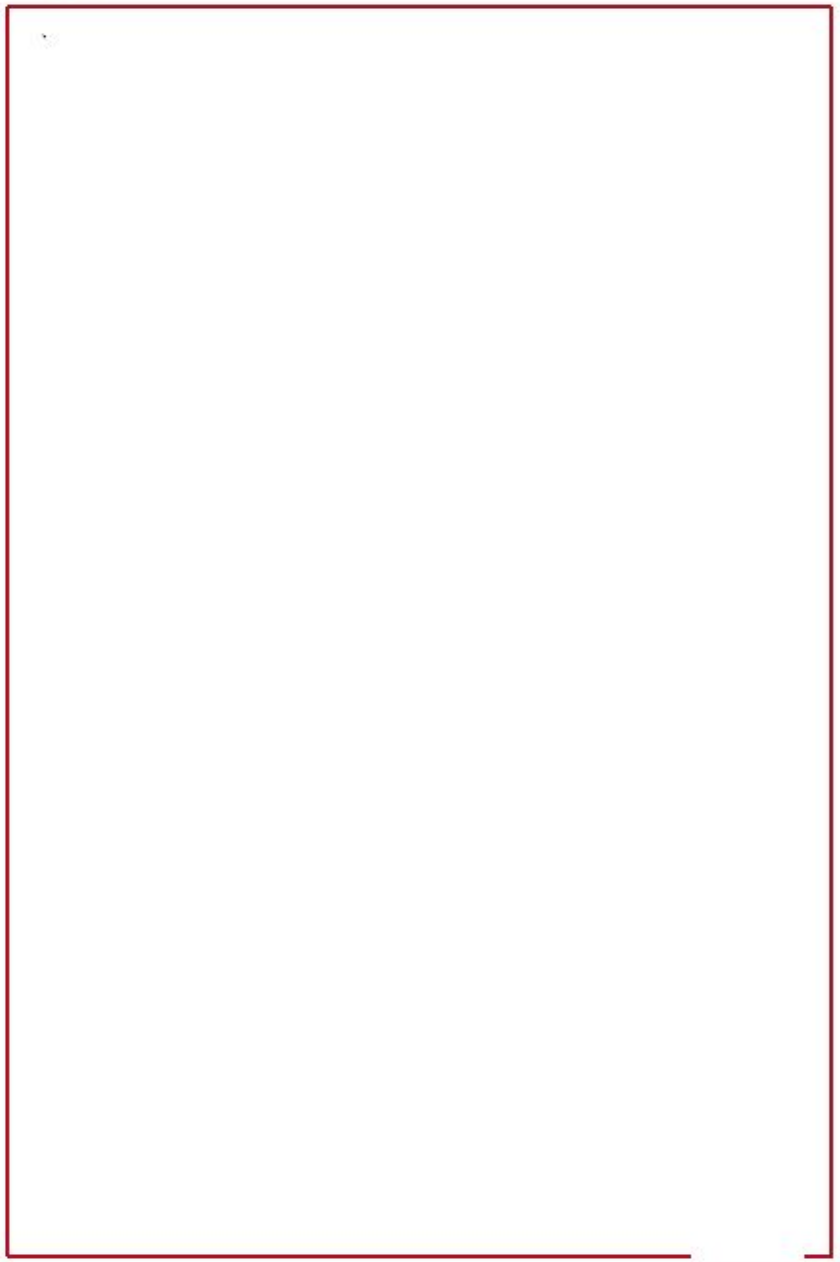

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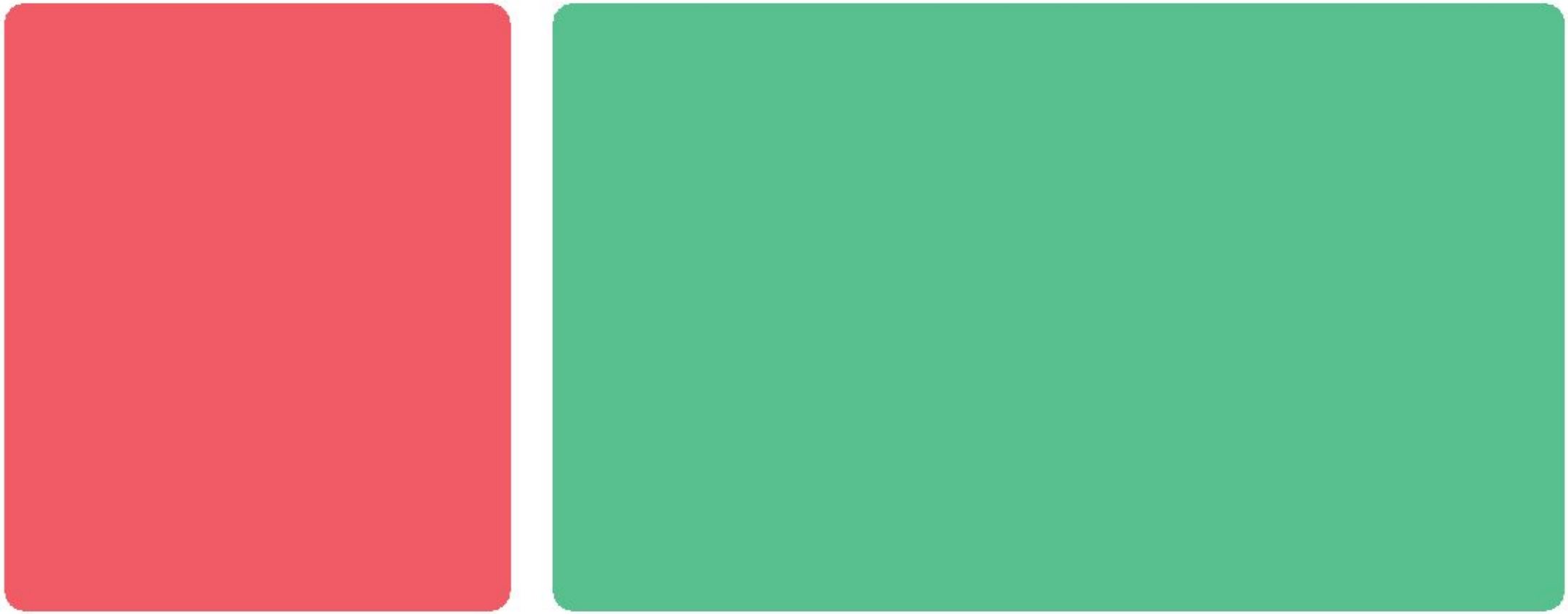

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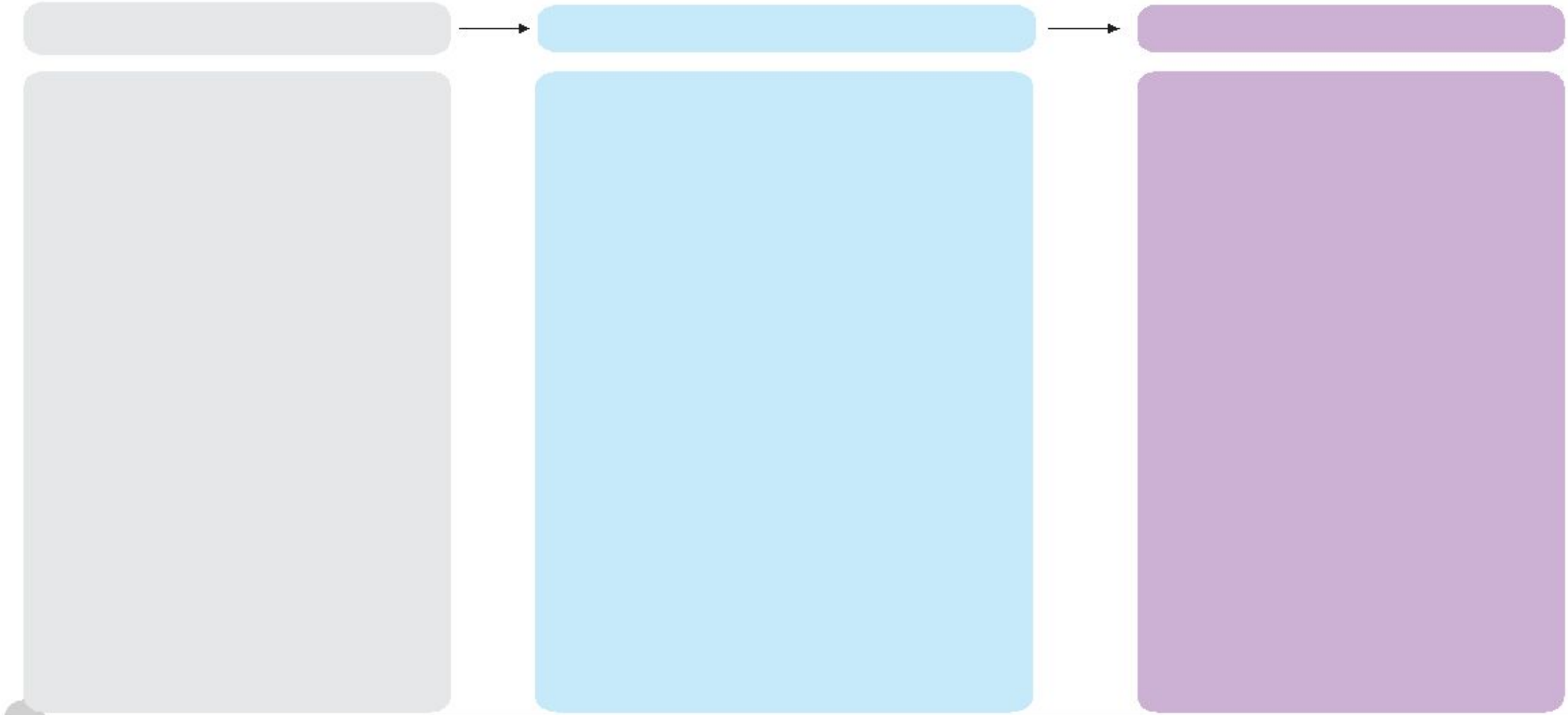

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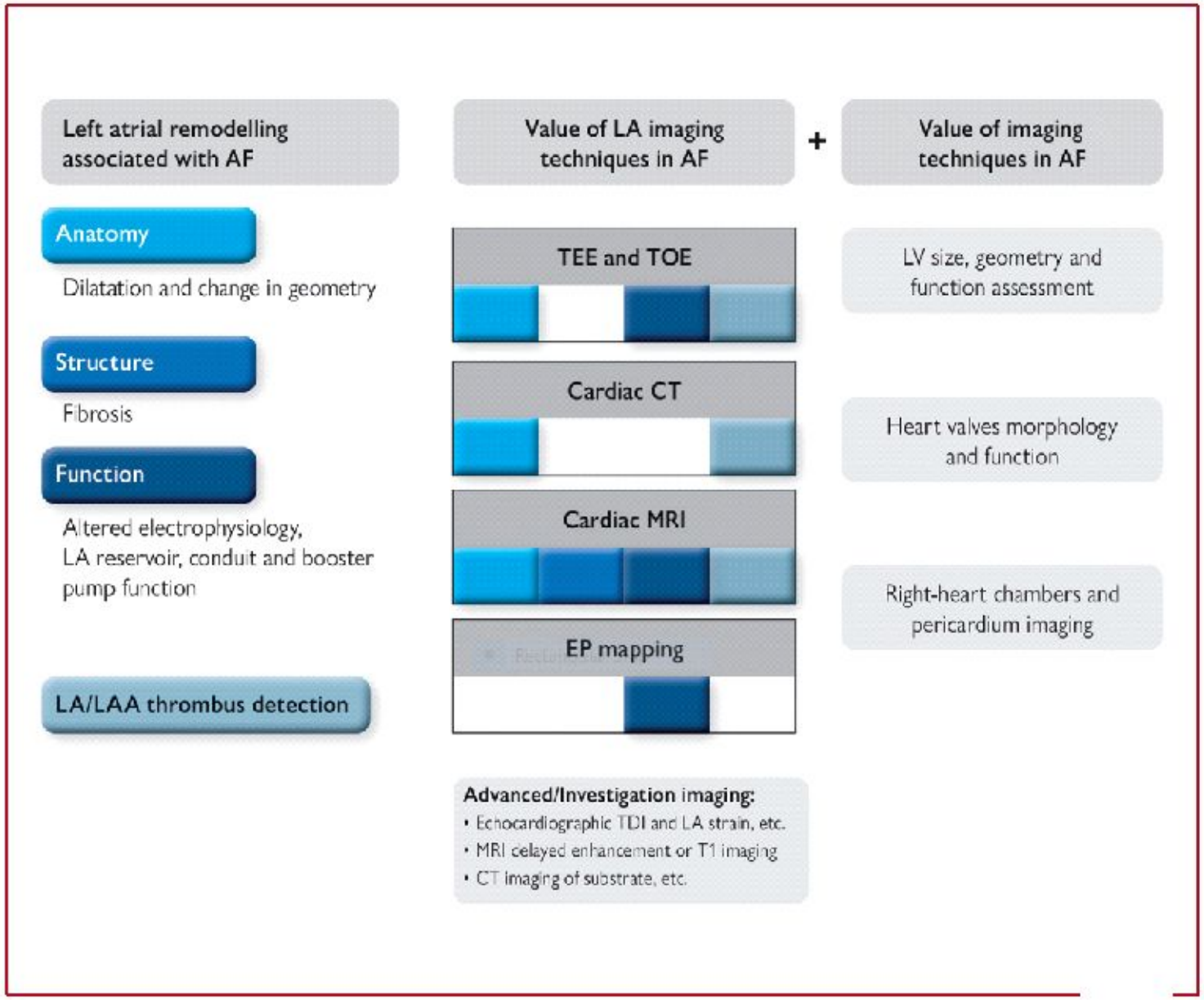

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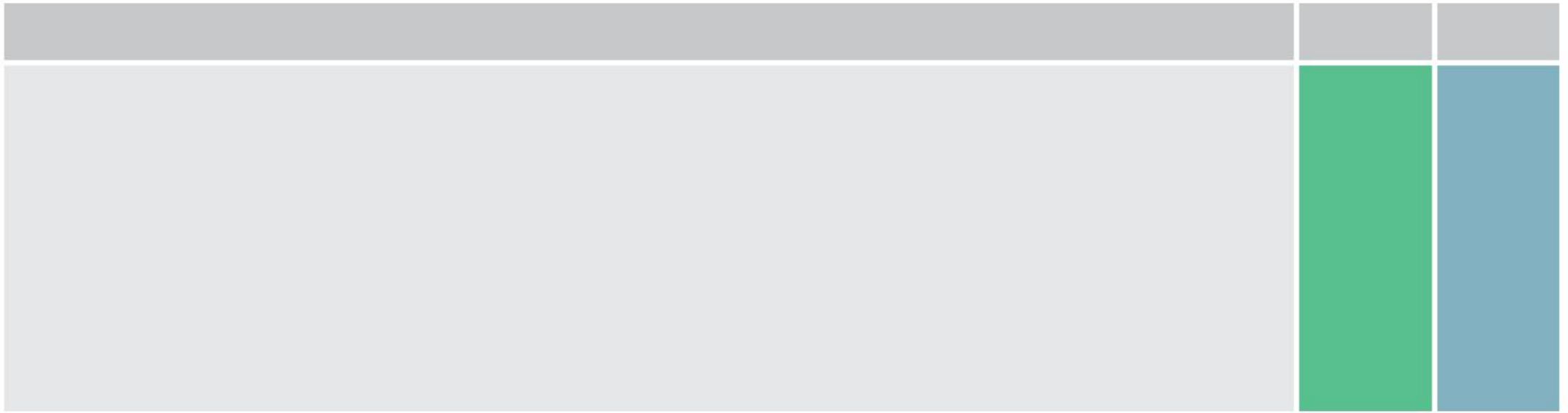
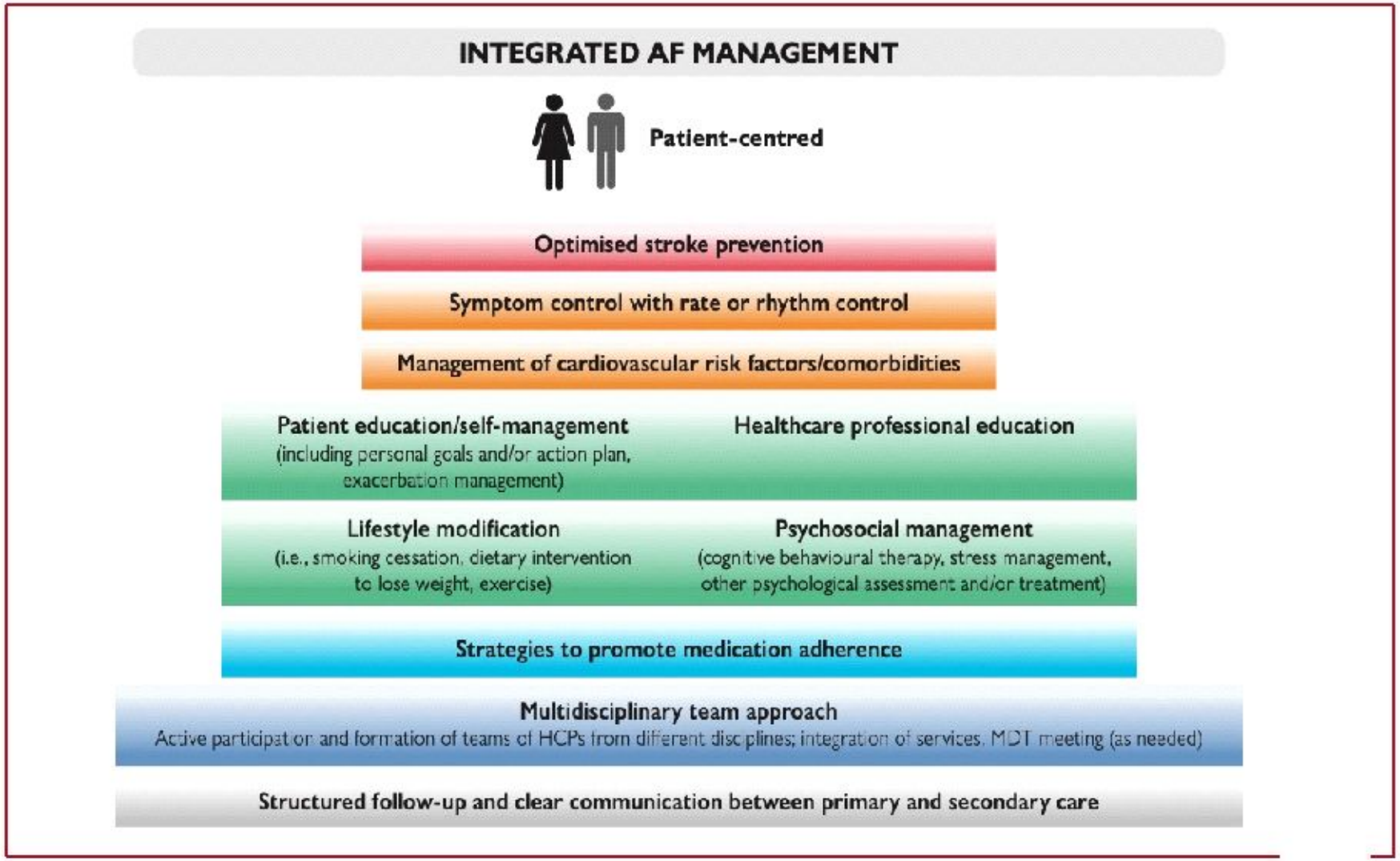
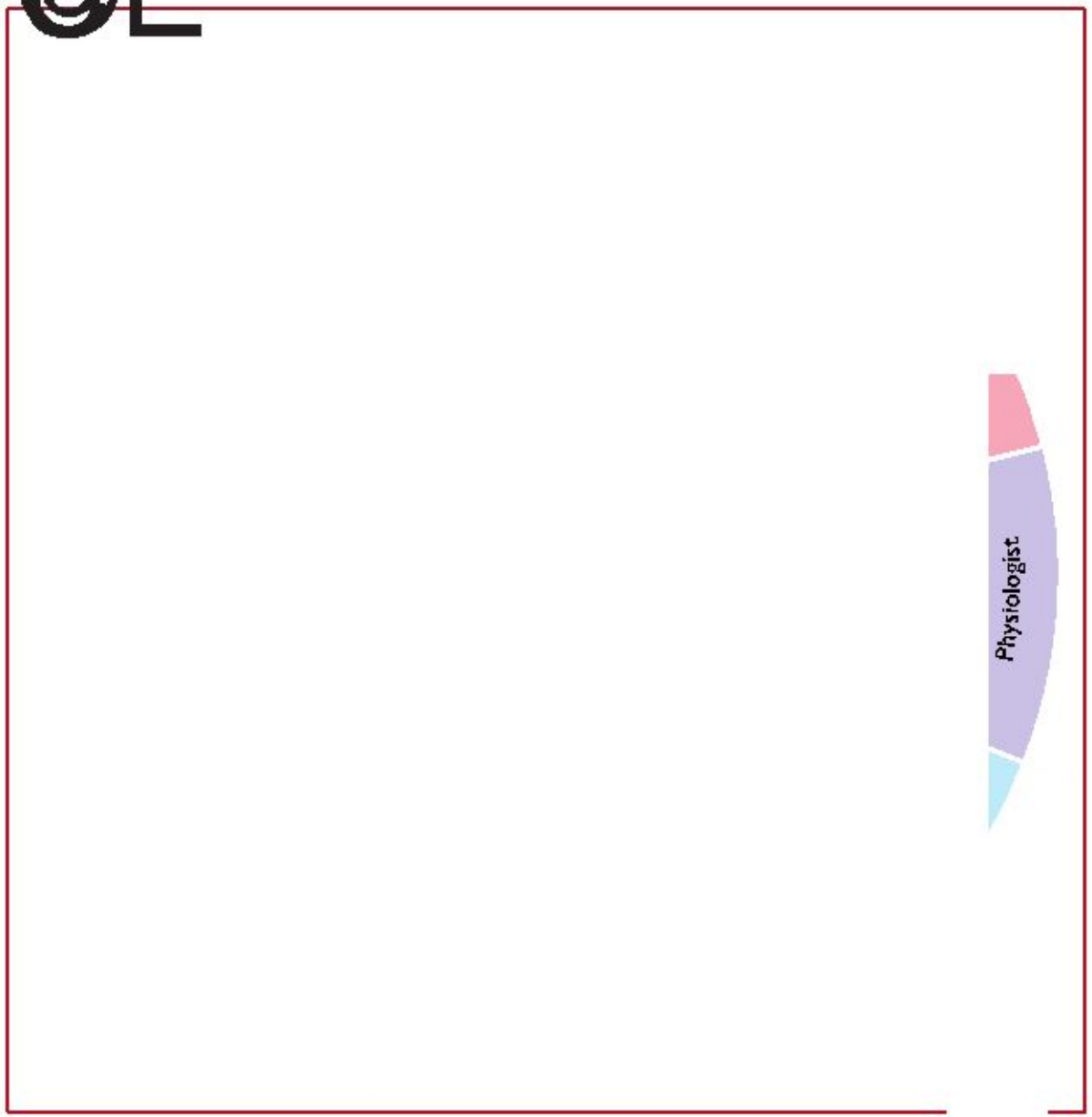



INTEGRATED AF MANAGEMENT
Patient-centred
Optimised stroke prevention
Symptom control with rate or rhythm control
Management of cardiovascular risk factors/comorbidities
Patient education/self-management
(including personal goals and/or action plan, exacerbation management)
Healthcare professional education
Lifestyle modification
(i.e., smoking cessation, dietary intervention to lose weight, exercise)
Psychosocial management
(cognitive behavioural therapy, stress management, other psychological assessment and/or treatment)
Strategies to promote medication adherence
Multidisciplinary team approach
Active participation and formation of teams of HCPs from different disciplines; integration of services. MDT meeting (as needed)
Structured follow-up and clear communication between primary and secondary care



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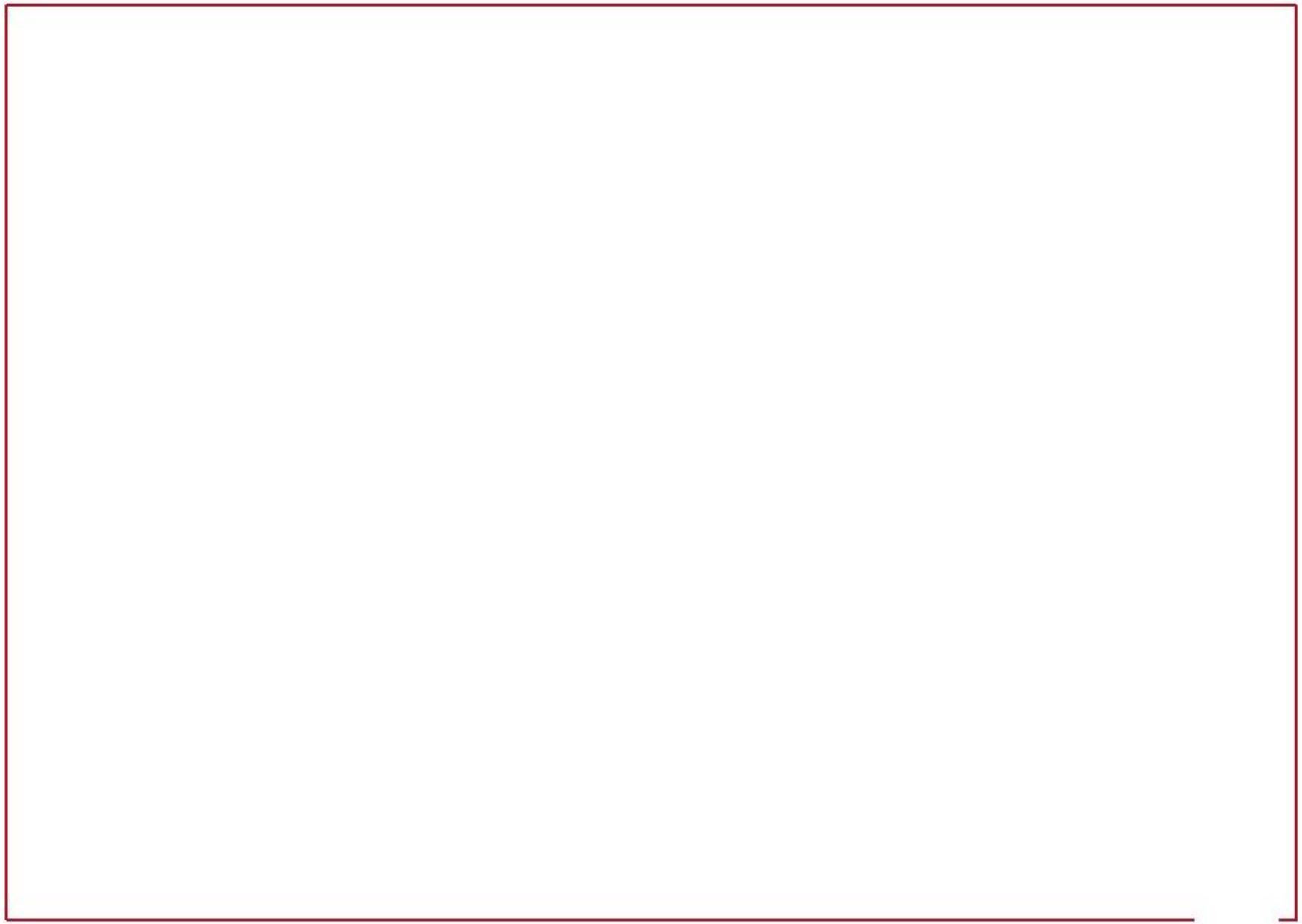

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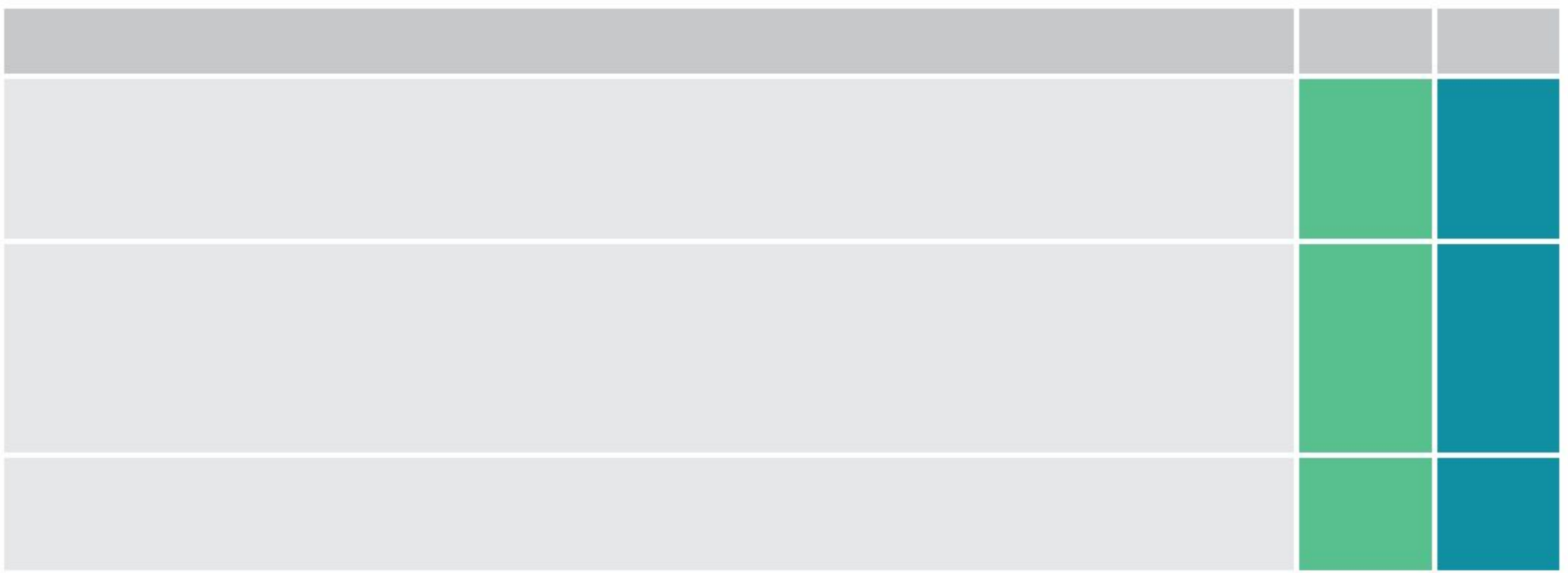

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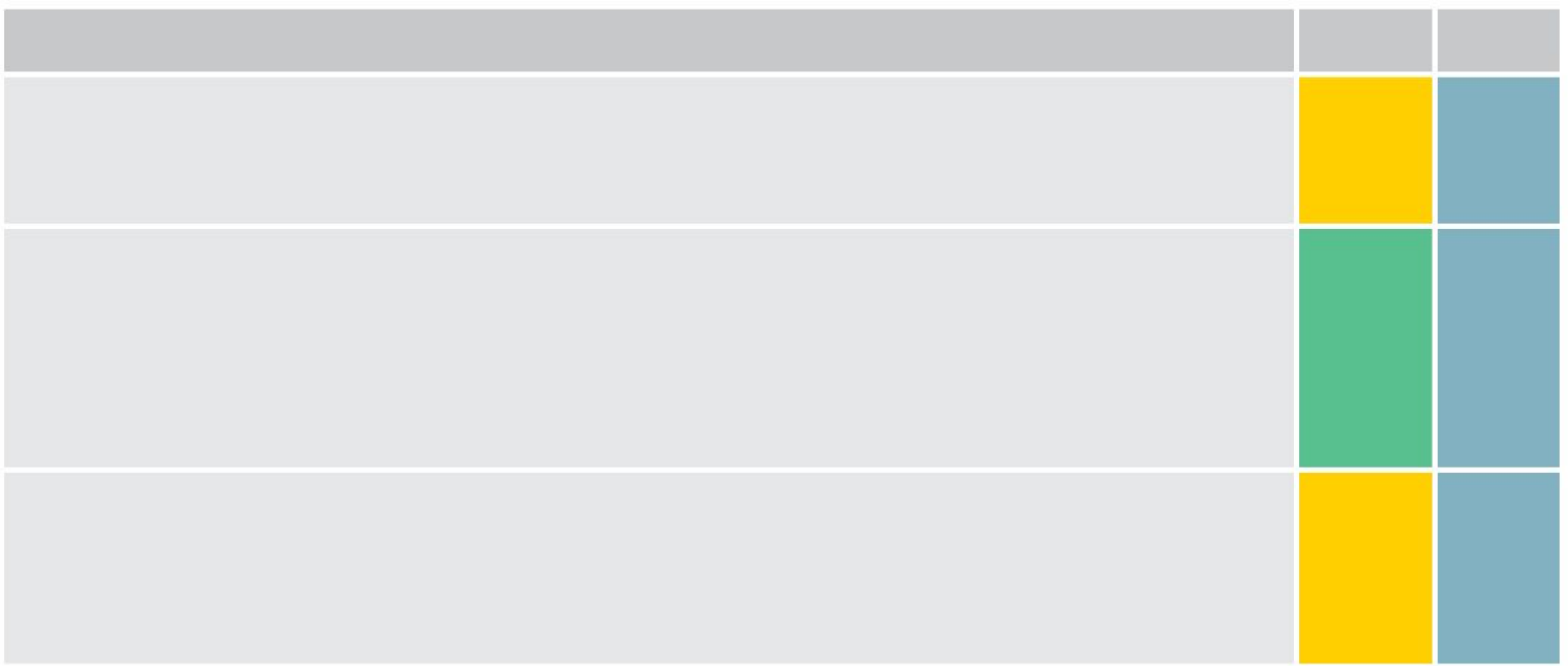

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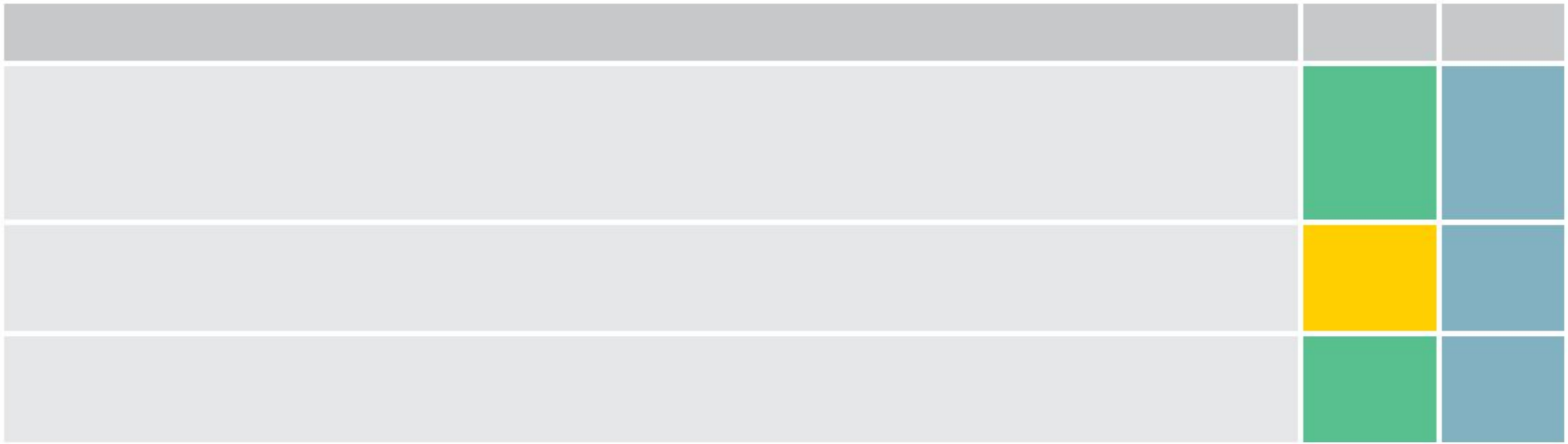

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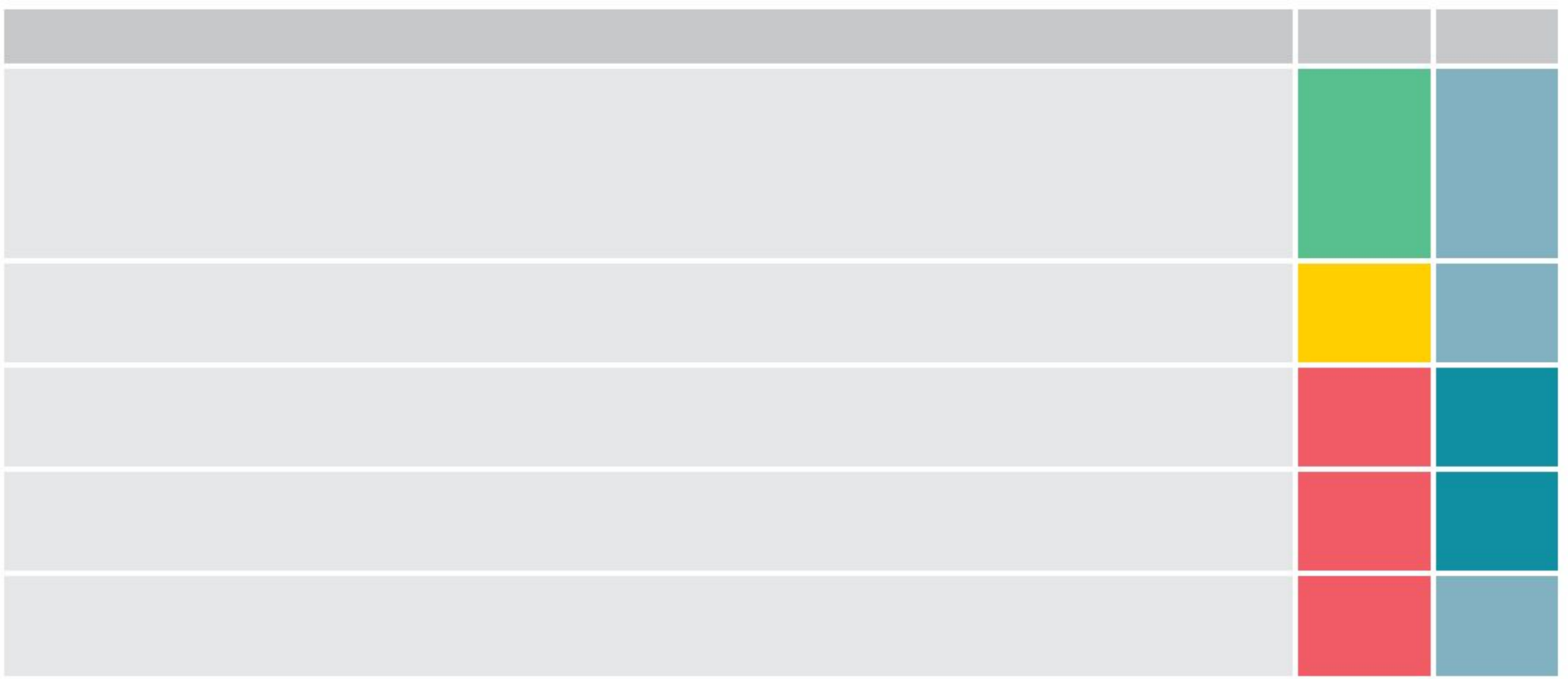

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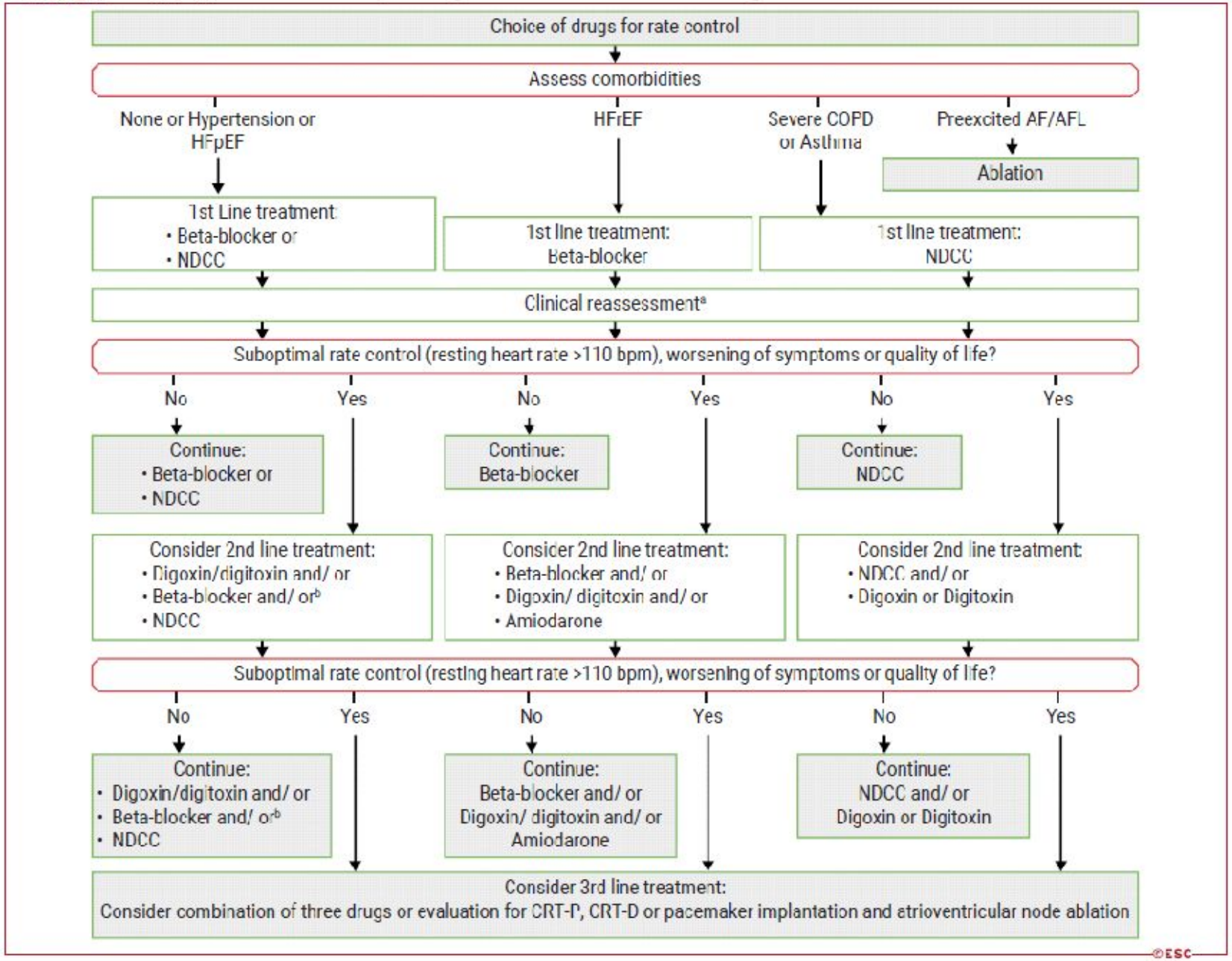

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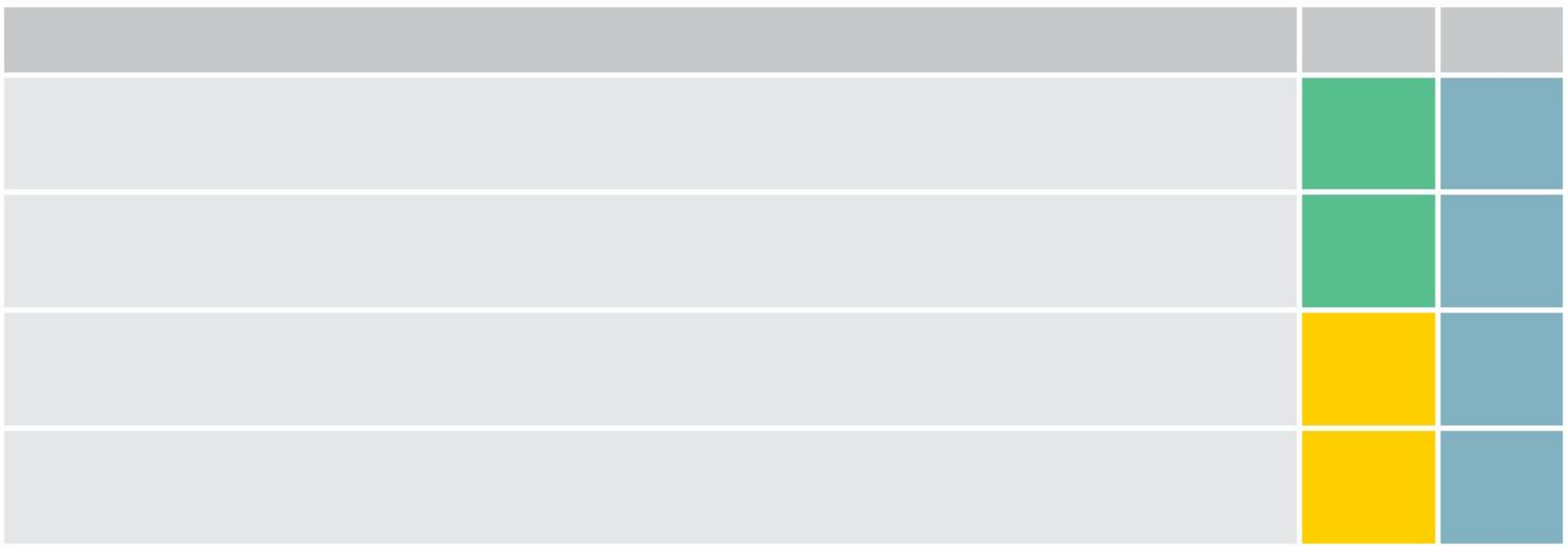

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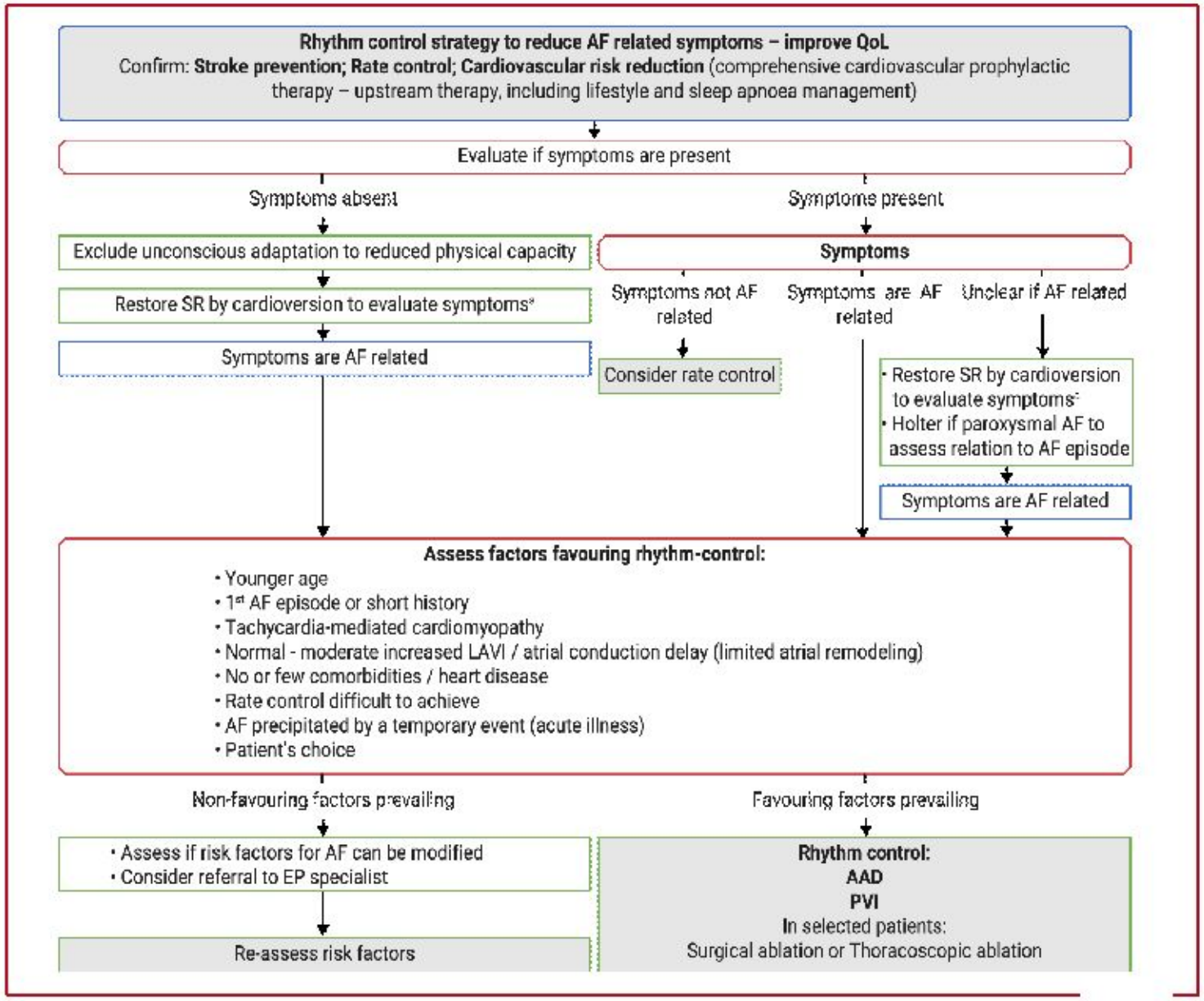

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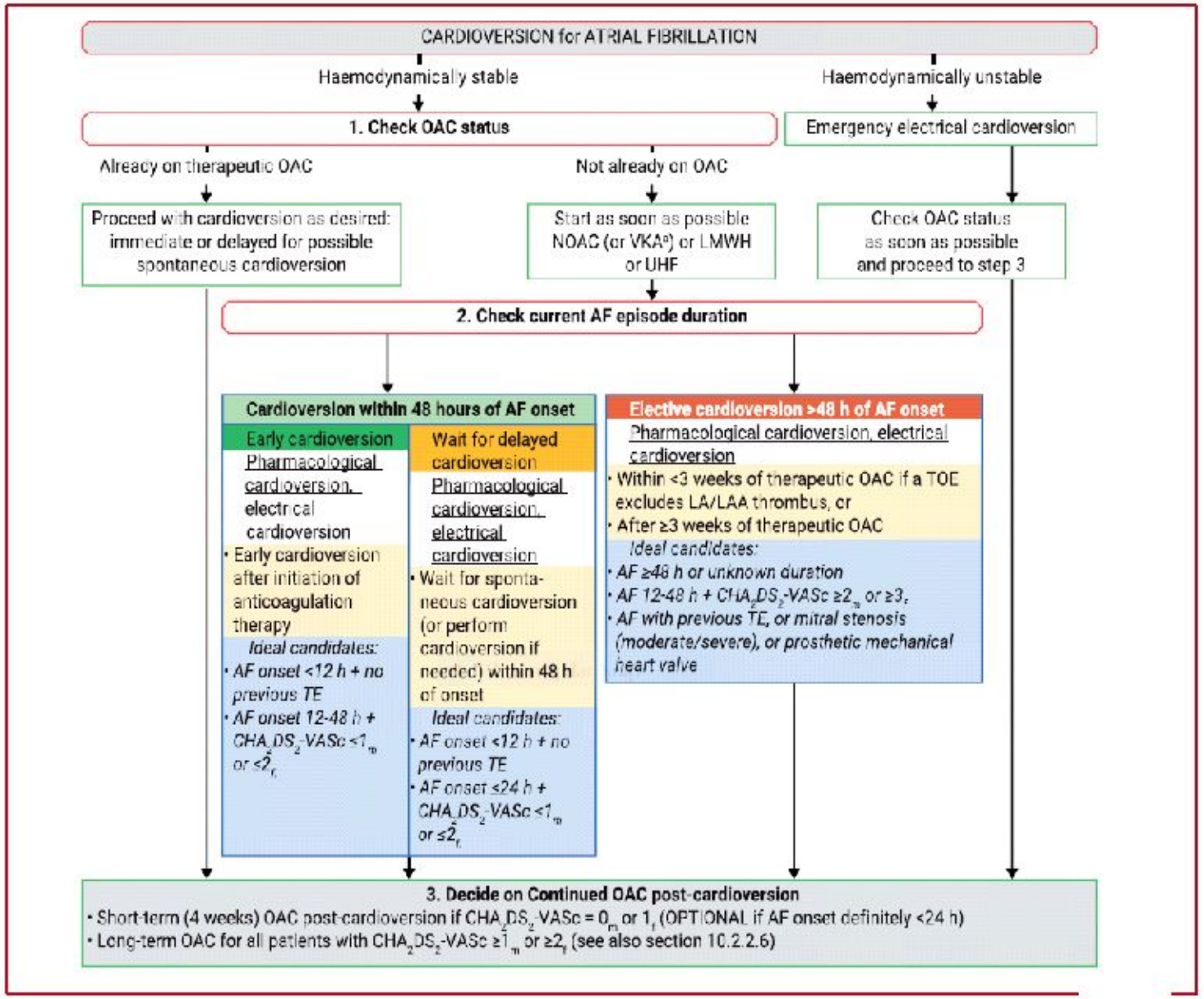

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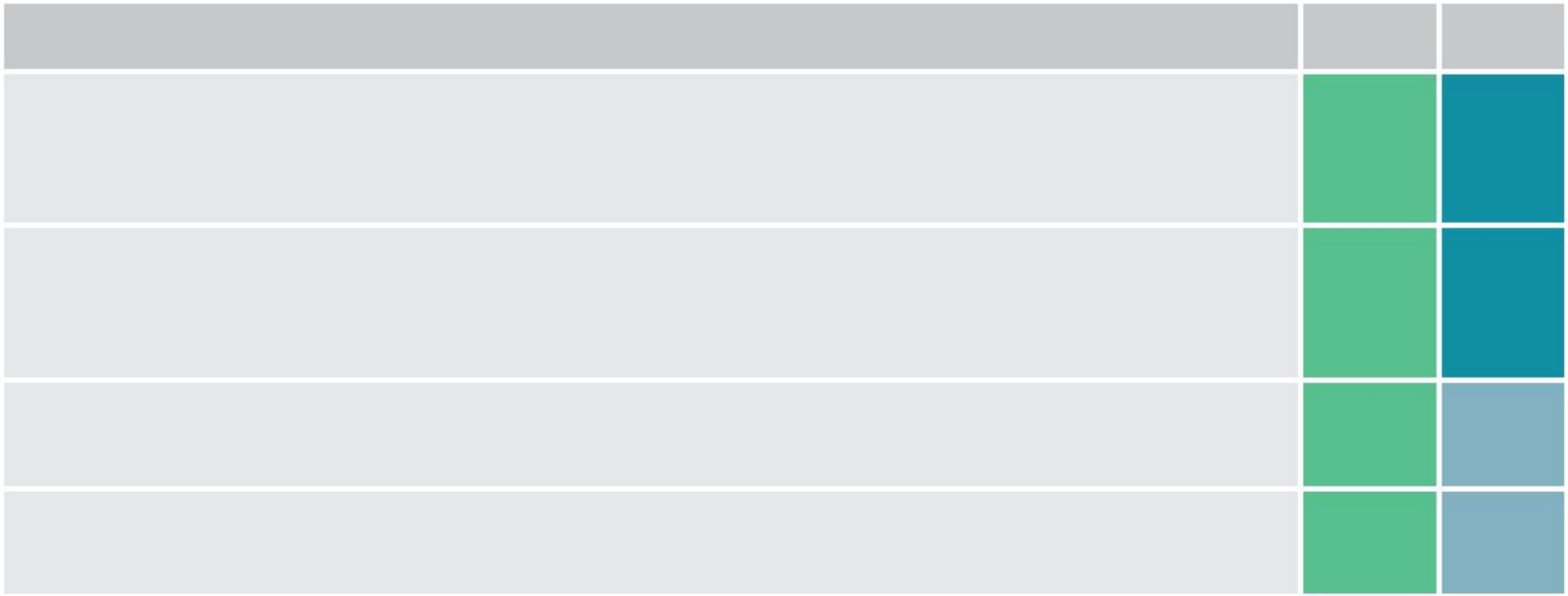

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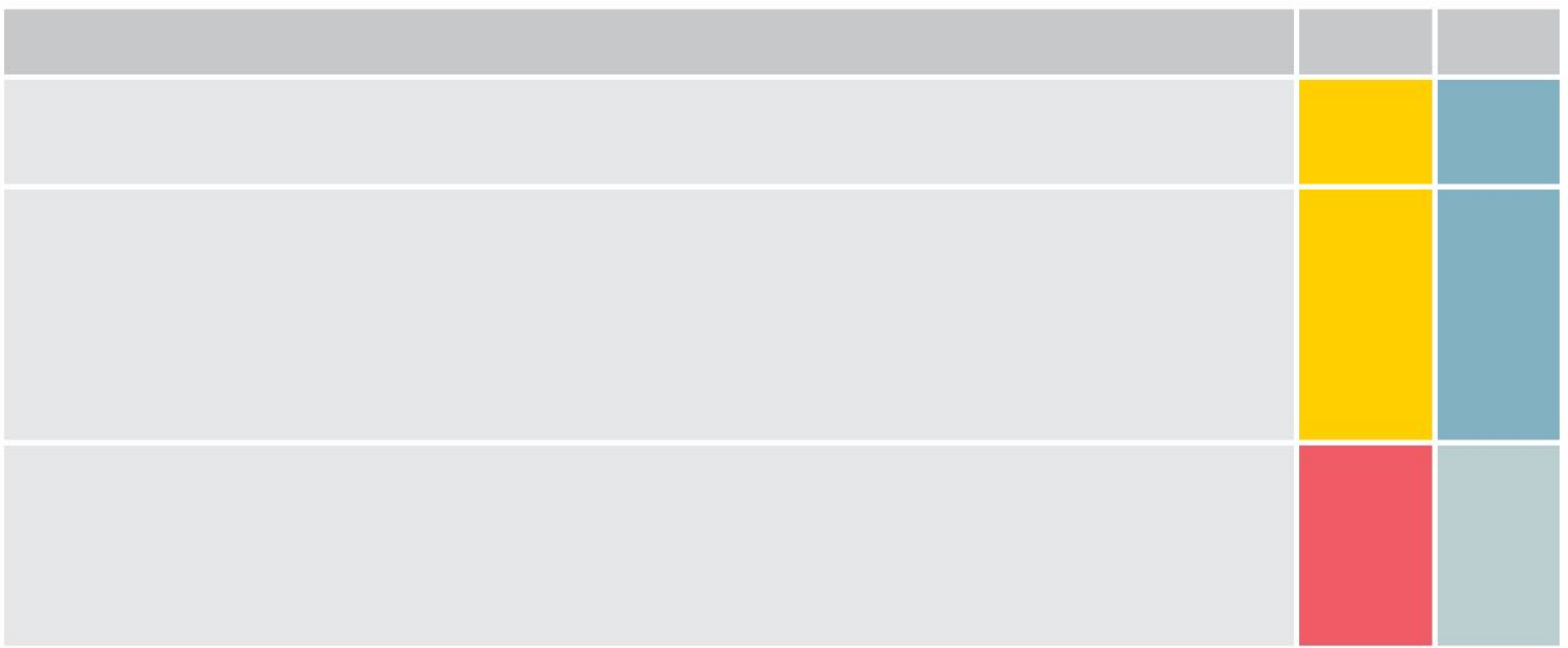

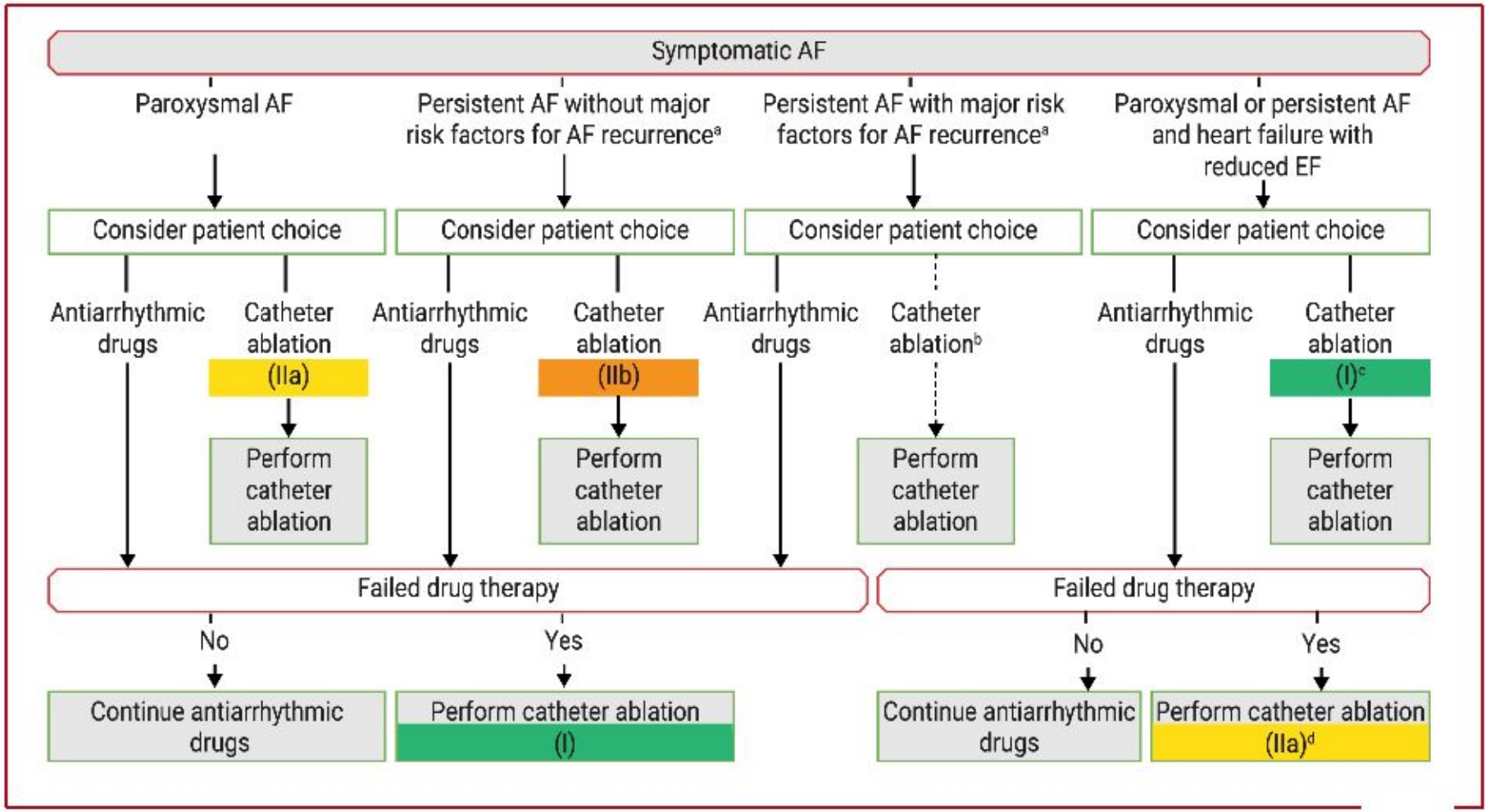
Symptomatic AF
Paroxysmal AF
Persistent AF without major risk factors for AF recurrence[a]
Persistent AF with major risk factors for AF recurrence[a]
Paroxysmal or persistent AF and heart failure with reduced EF
Consider patient choice
Consider patient choice
Consider patient choice
Consider patient choice
Antiarrhythmic drugs
Catheter ablation
(IIa)
Antiarrhythmic drugs
Catheter ablation
(IIb)
Antiarrhythmic drugs
Catheter ablation[b]
Antiarrhythmic drugs
Catheter ablation
(I)[c]
Perform catheter ablation
Perform catheter ablation
Perform catheter ablation
Perform catheter ablation
Failed drug therapy
Failed drug therapy
No
Yes
No
Yes
Continue antiarrhythmic drugs
Perform catheter ablation
(I)
Continue antiarrhythmic drugs
Perform catheter ablation
(IIa)[d]

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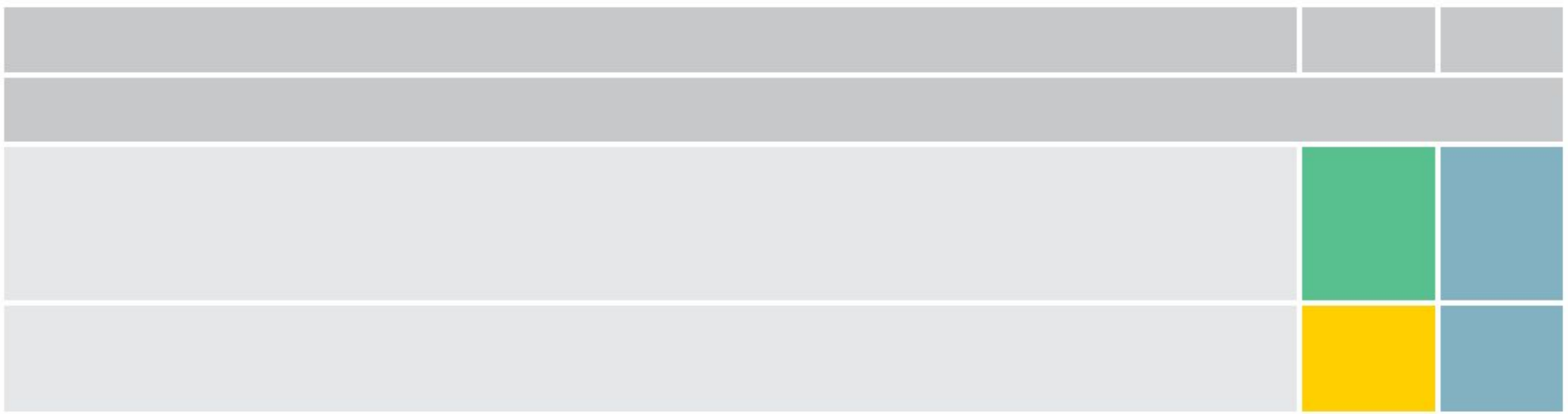

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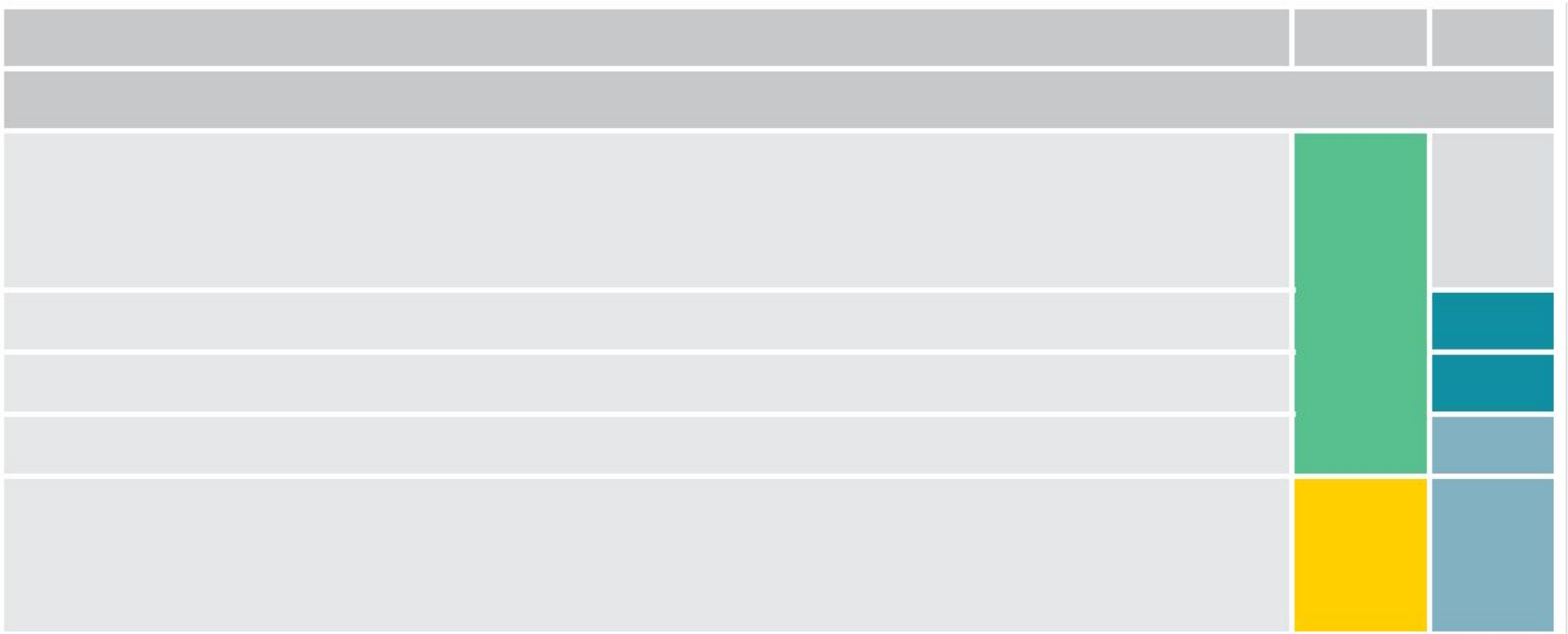

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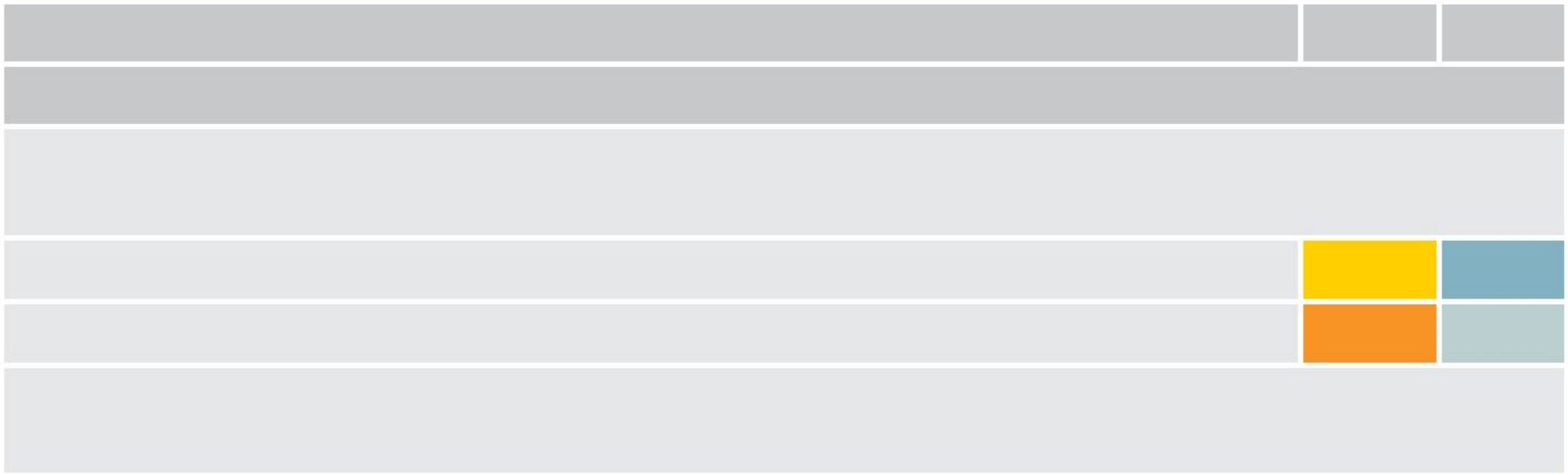

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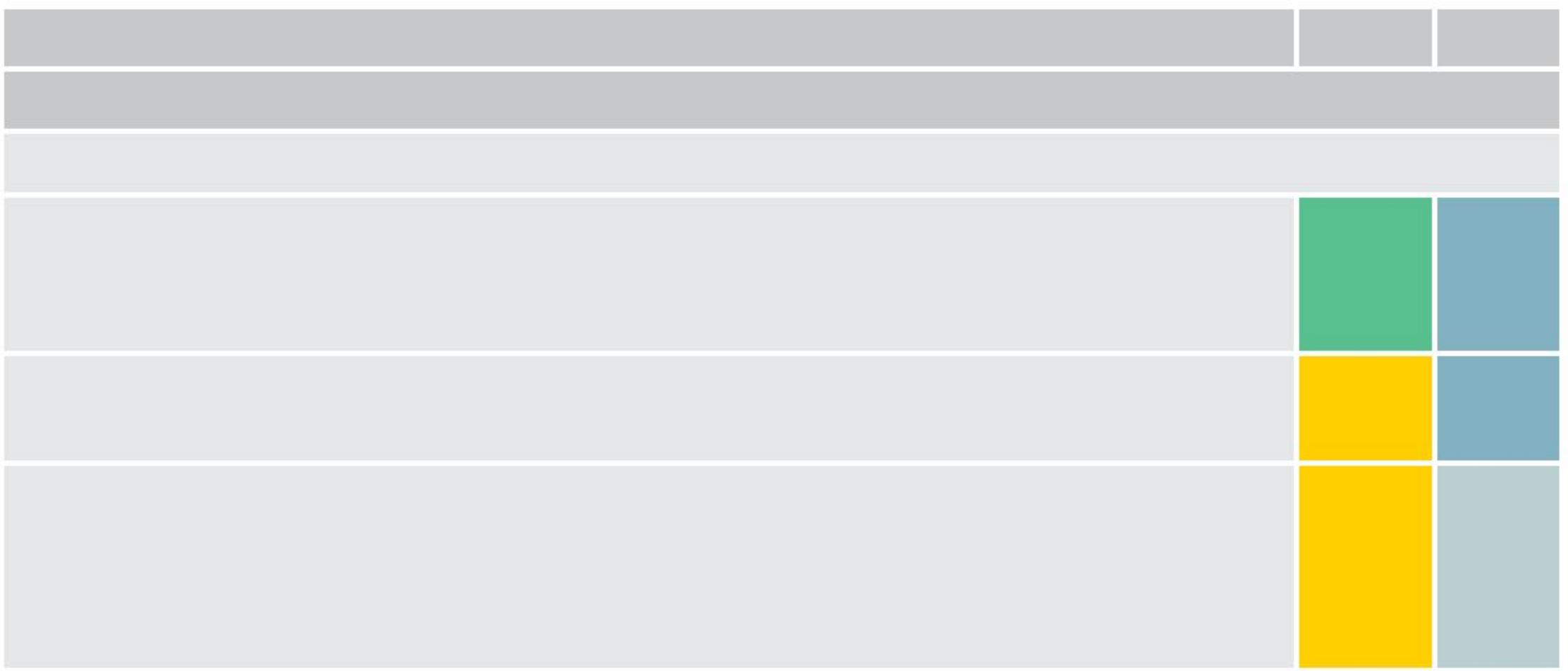

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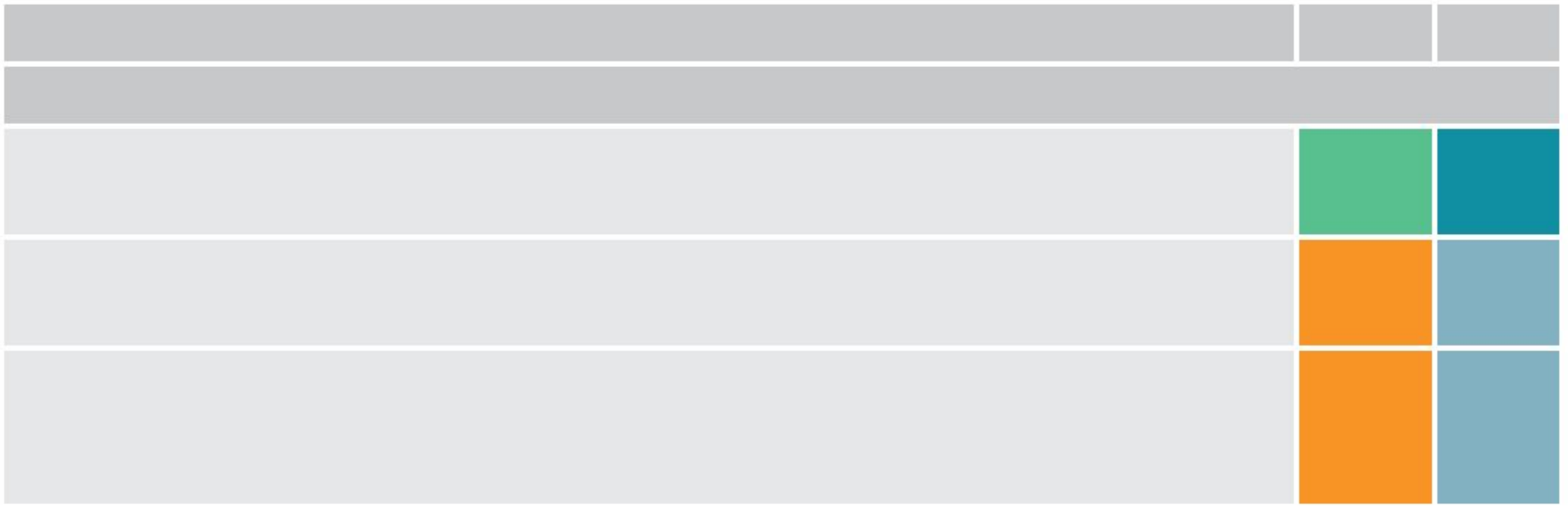

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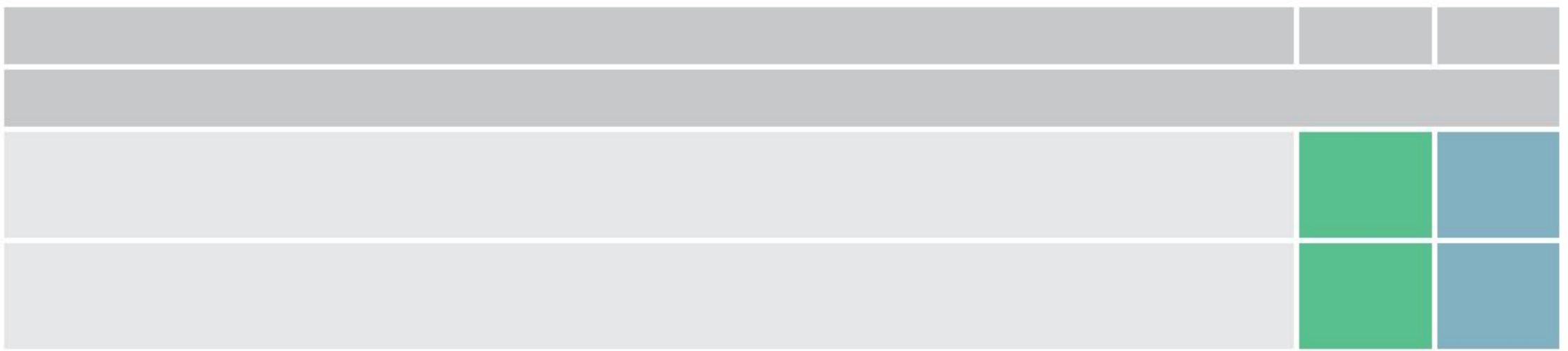

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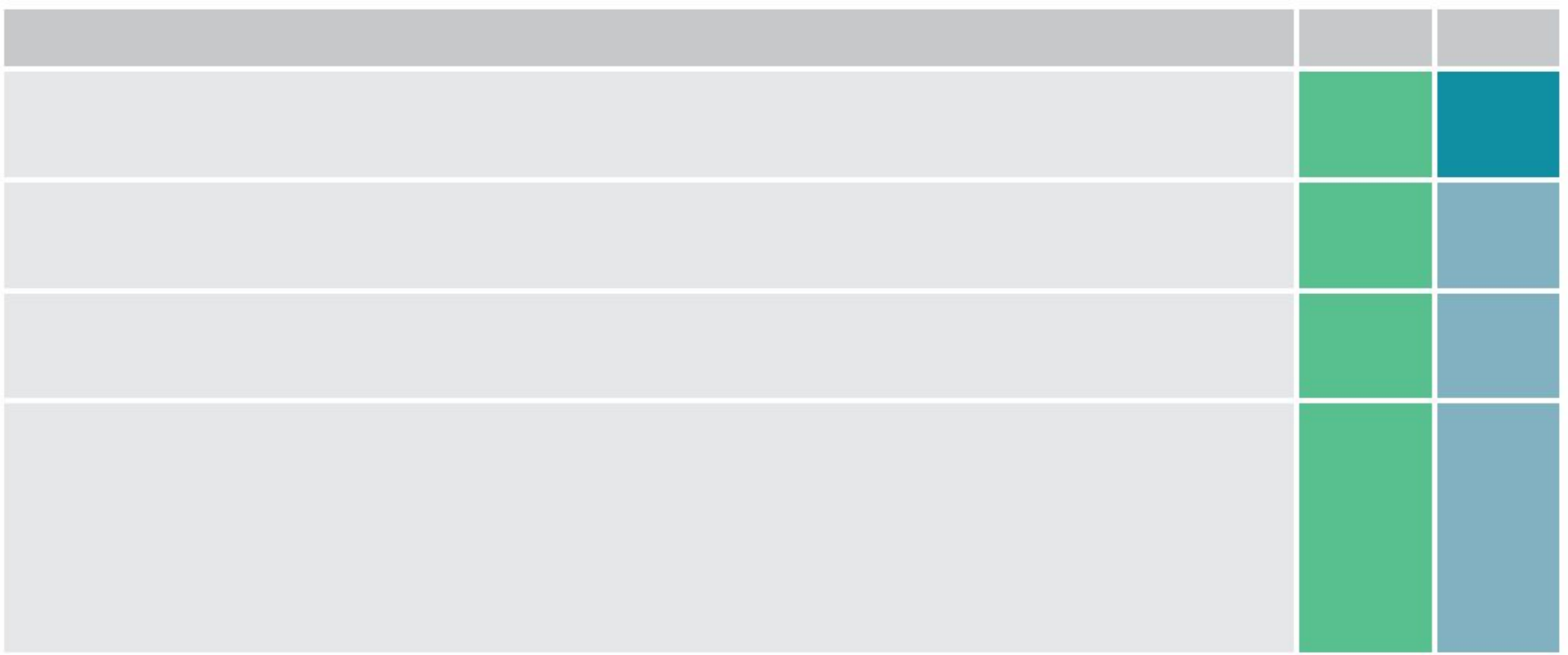

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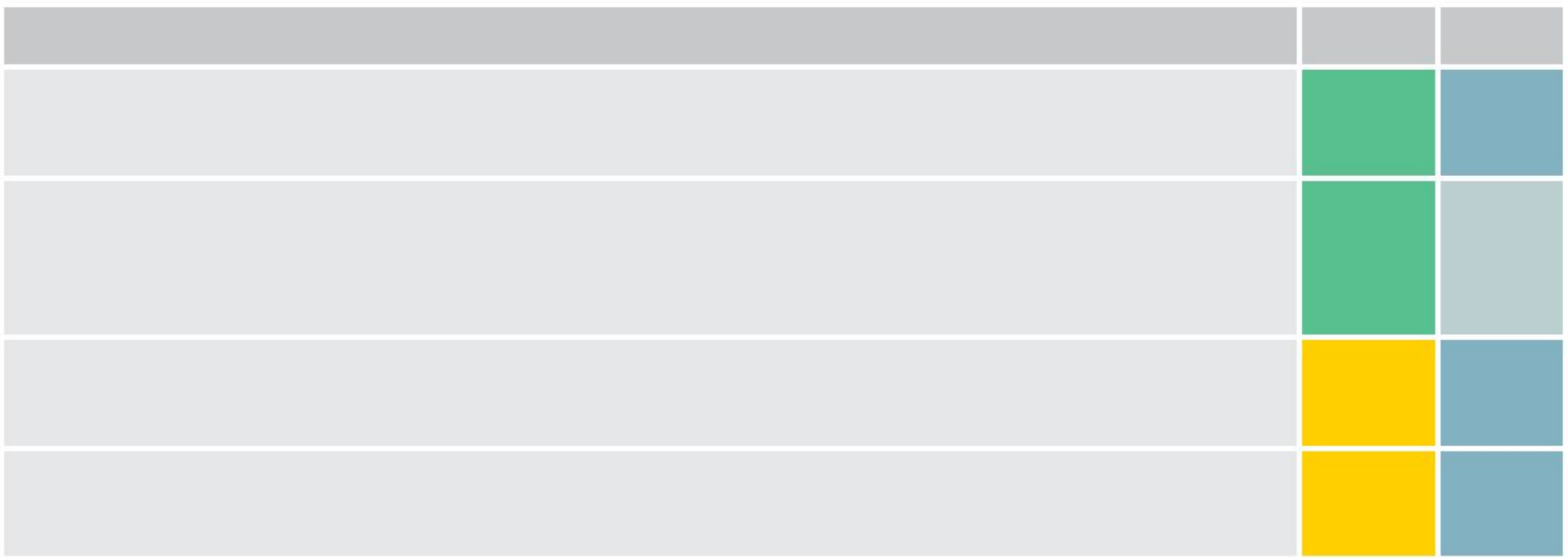

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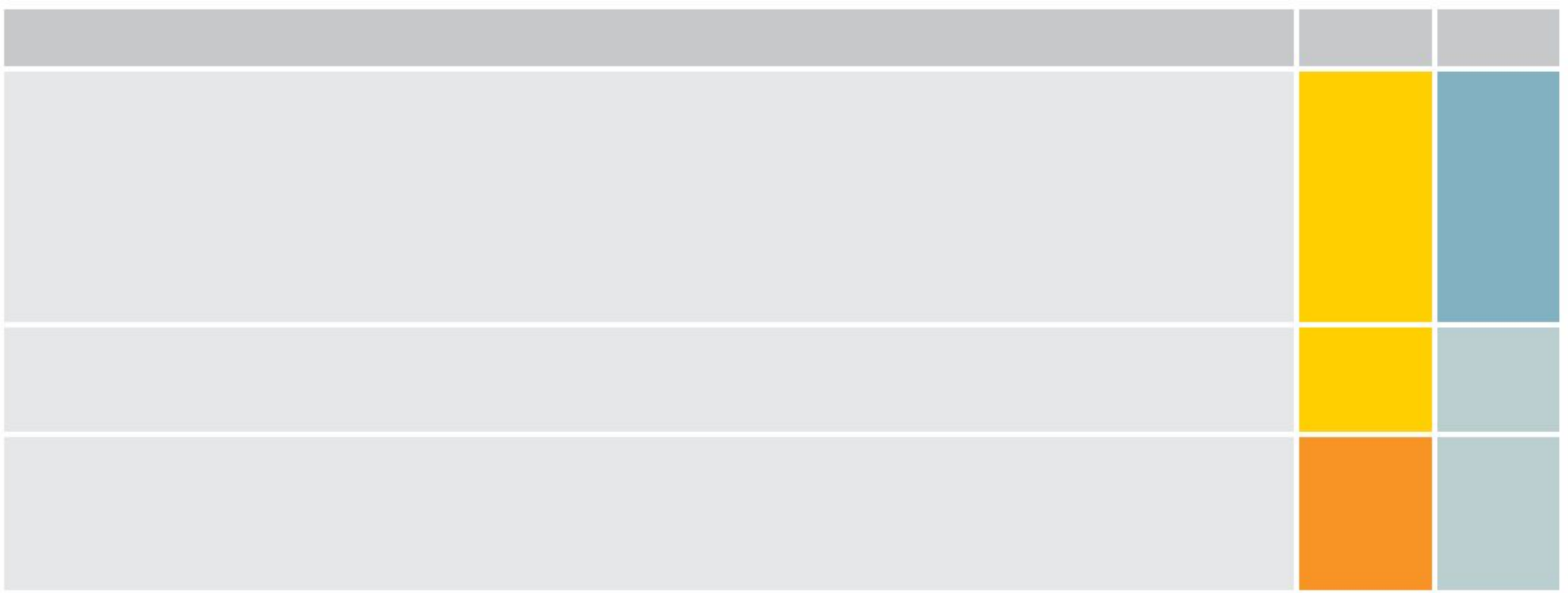

Recommendations for stroke risk management peri catheter ablation (1)

Recommendations	Class	Level
In AF patients with stroke risk factors not taking OAC before ablation, it is recommended that preprocedural management of stroke risk includes initiation of anticoagulation and: • Preferably, therapeutic OAC for at least 3 weeks before ablation, or	I	C
• Alternatively, the use of TOE to exclude LA thrombus before ablation.	IIa	C
For patients undergoing AF catheter ablation who have been therapeutically anticoagulated with warfarin, dabigatran, rivaroxaban, apixaban, or edoxaban, performance of the ablation procedure without OAC interruption is recommended.	I	A

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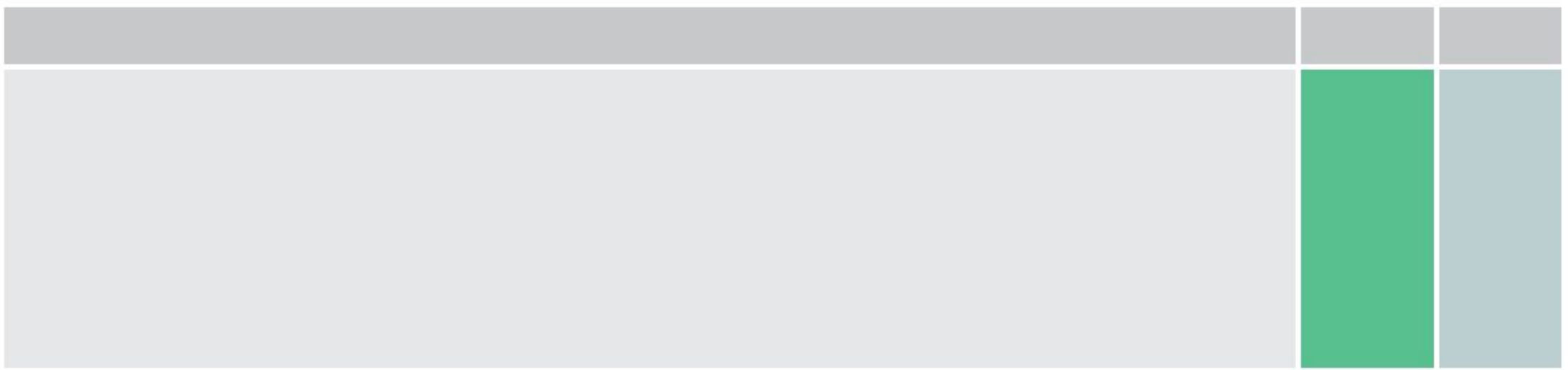

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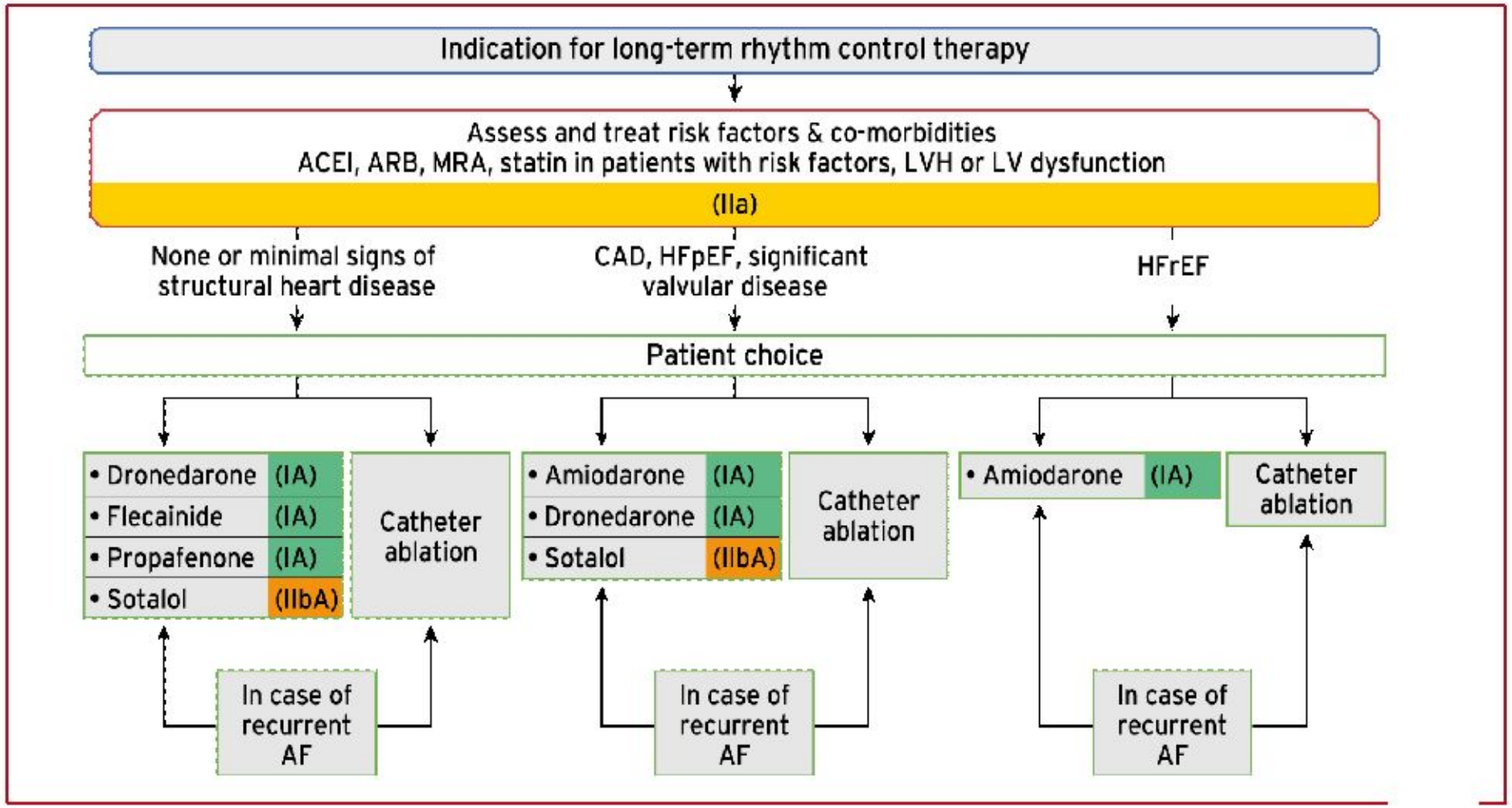
Indication for long-term rhythm control therapy
Assess and treat risk factors & co-morbidities
ACEI, ARB, MRA, statin in patients with risk factors, LVH or LV dysfunction
(IIa)
None or minimal signs of structural heart disease
CAD, HFpEF, significant valvular disease
HFrEF
Patient choice
• Dronedarone (IA)
• Flecainide (IA)
• Propafenone (IA)
• Sotalol (IIbA)
Catheter ablation
• Amiodarone (IA)
• Dronedarone (IA)
• Sotalol (IIbA)
Catheter ablation
• Amiodarone (IA)
Catheter ablation
In case of recurrent AF
In case of recurrent AF
In case of recurrent AF

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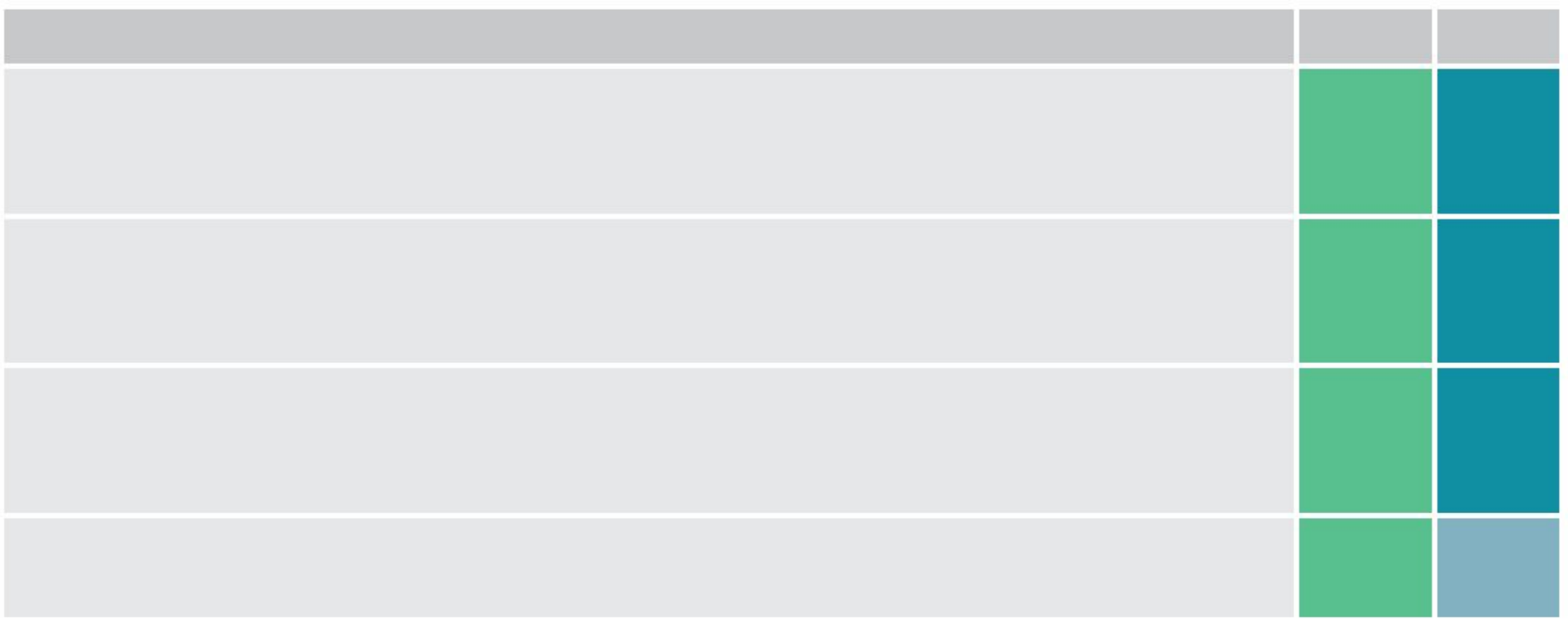

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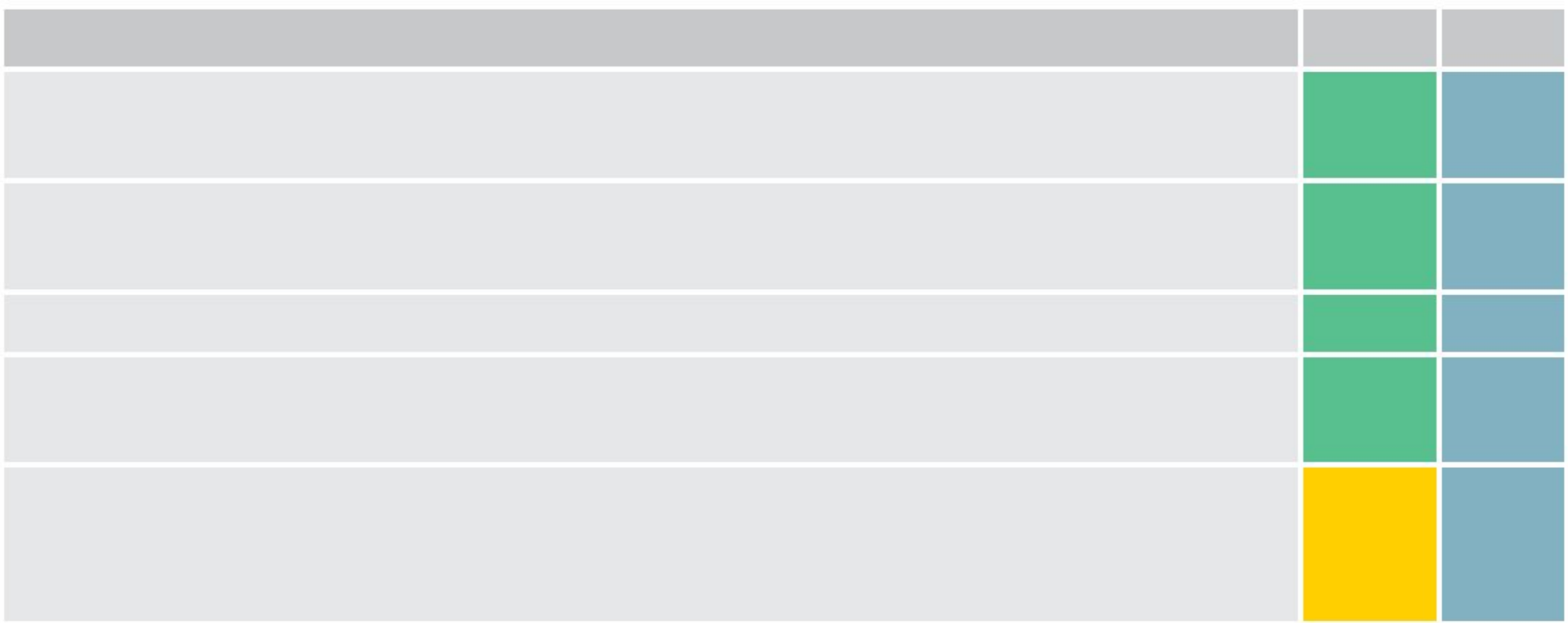

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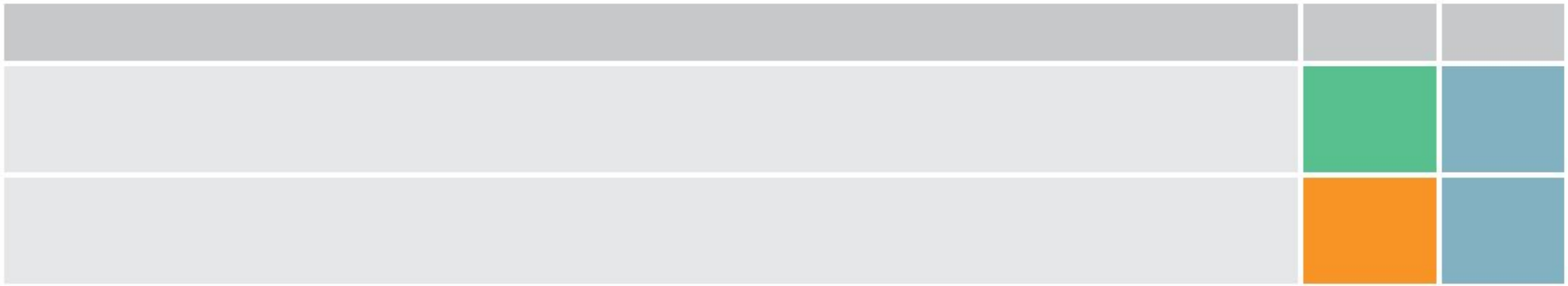

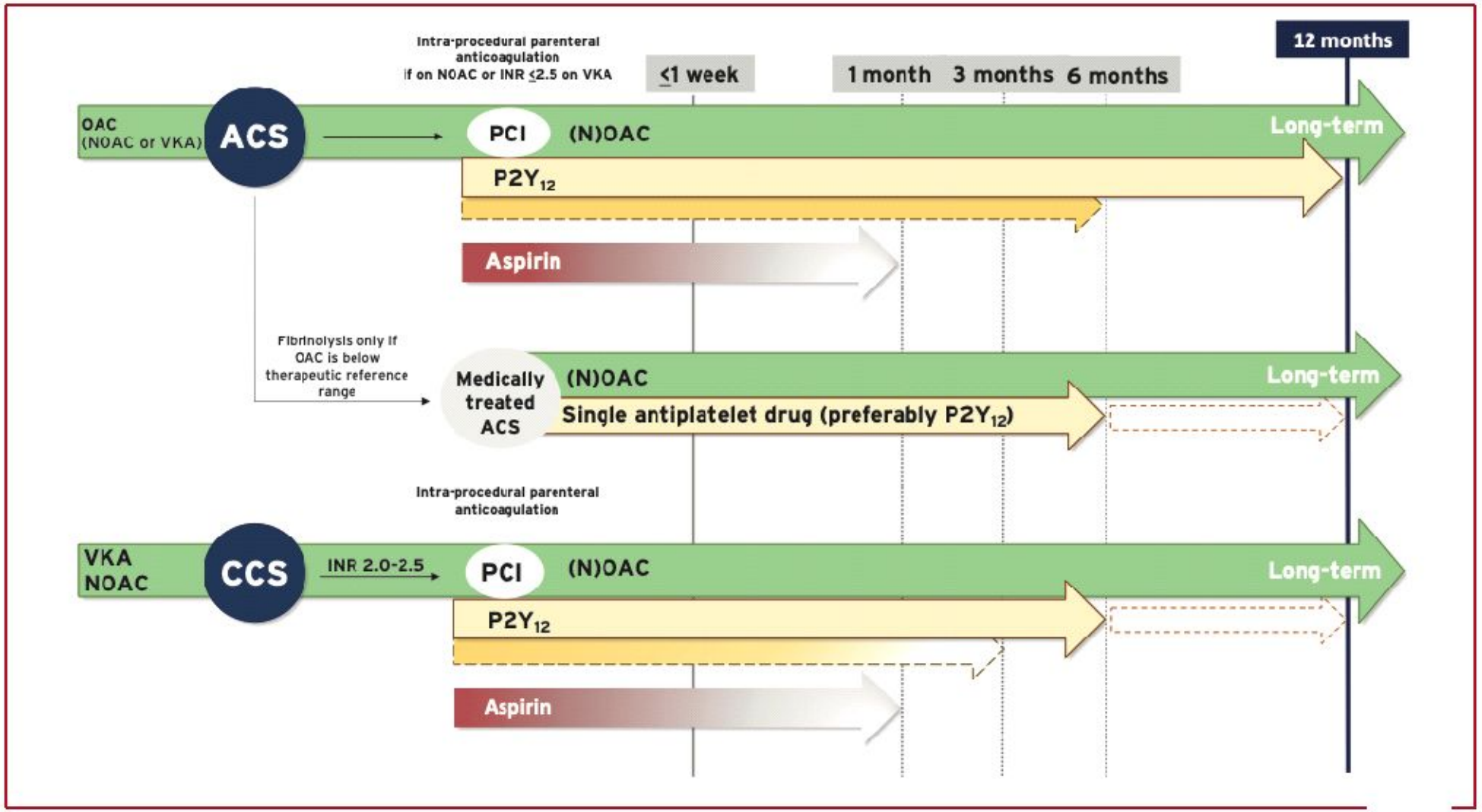
Intra-procedural parenteral anticoagulation if on NOAC or INR ≤2.5 on VKA
≤1 week
1 month
3 months
6 months
12 months
OAC (NOAC or VKA)
ACS
PCI
(N)OAC
Long-term
P2Y12
Aspirin
Fibrinolysis only if OAC is below therapeutic reference range
Medically treated ACS
(N)OAC
Long-term
Single antiplatelet drug (preferably P2Y12)
Intra-procedural parenteral anticoagulation
VKA NOAC
CCS
INR 2.0-2.5
PCI
(N)OAC
Long-term
P2Y12
Aspirin

Registro de Ocorrência

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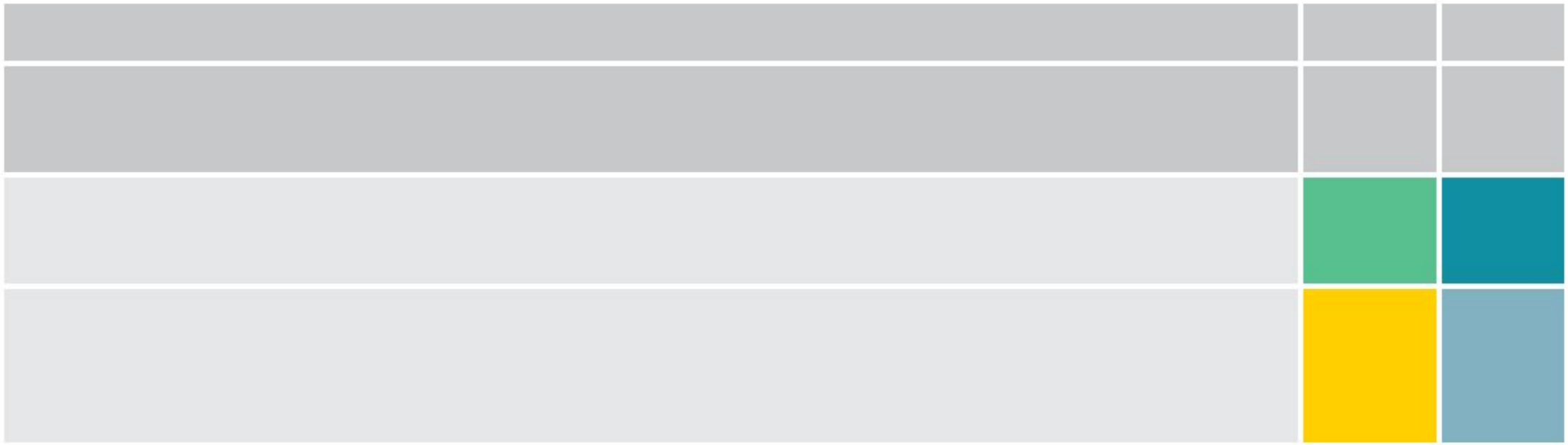

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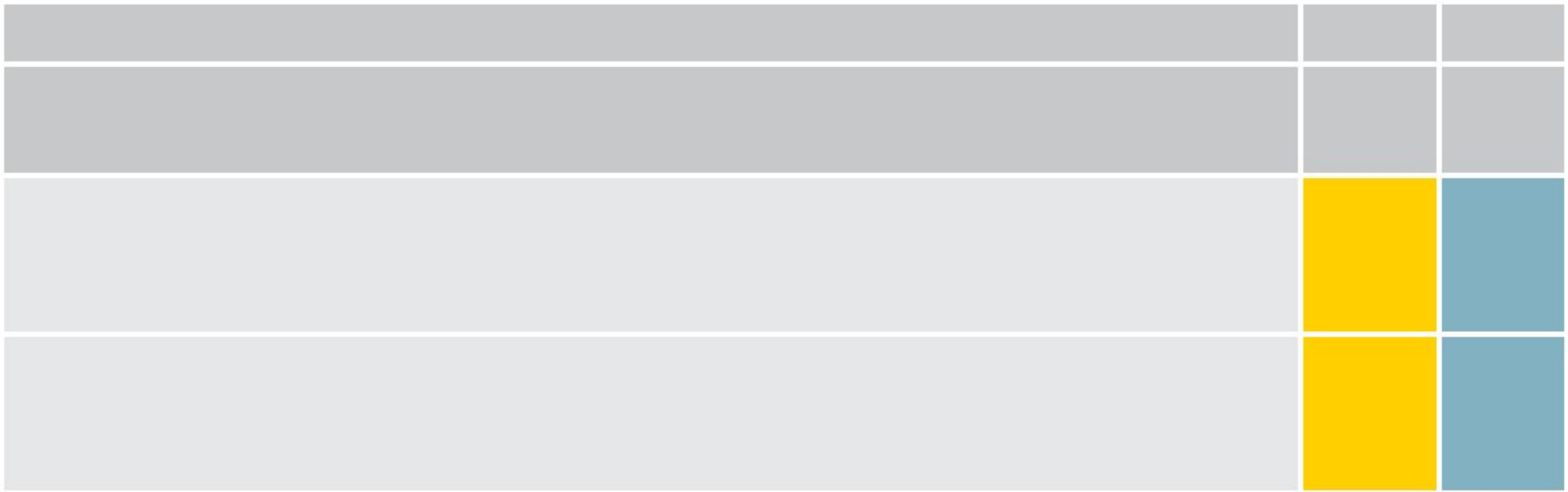

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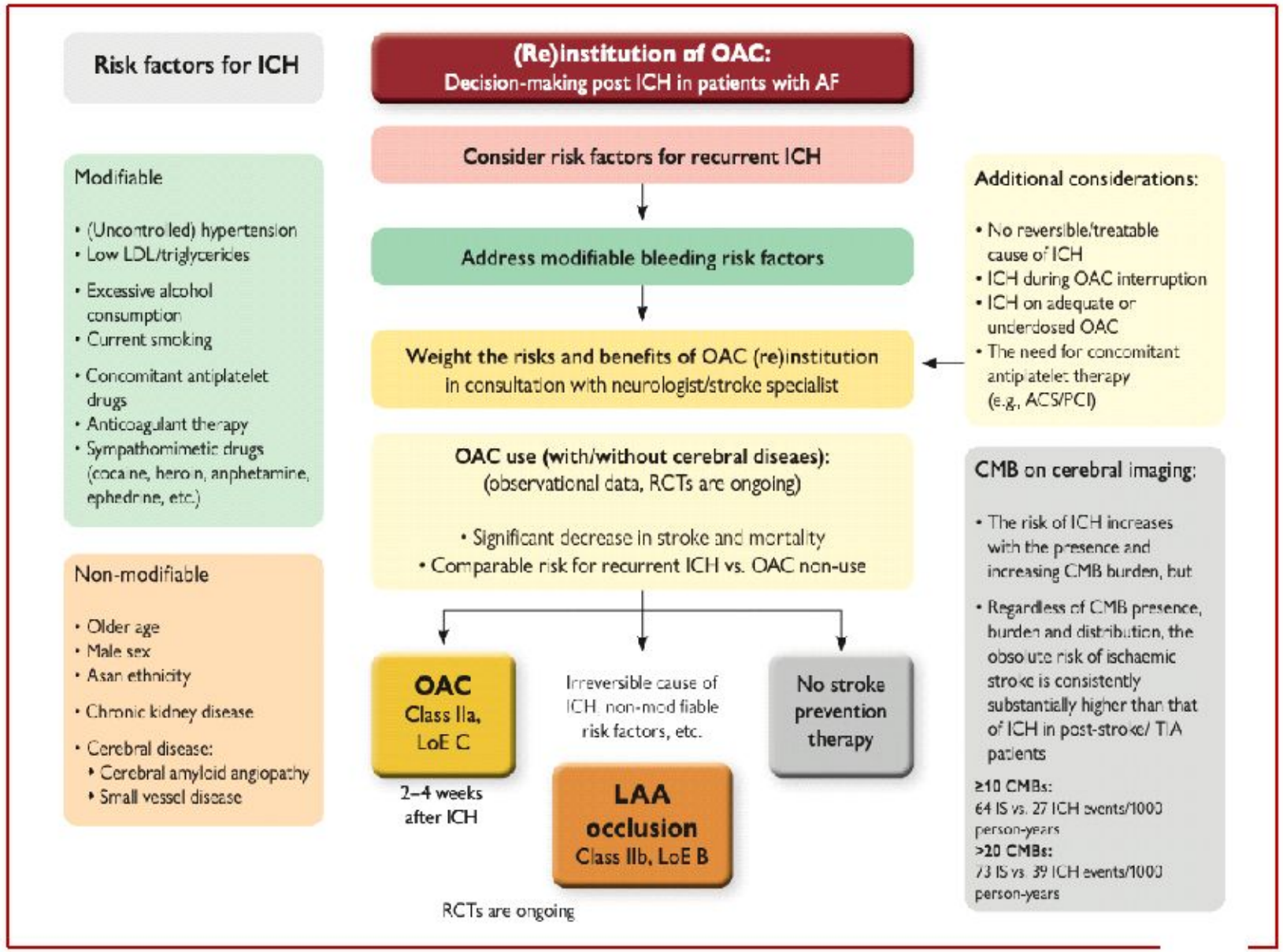

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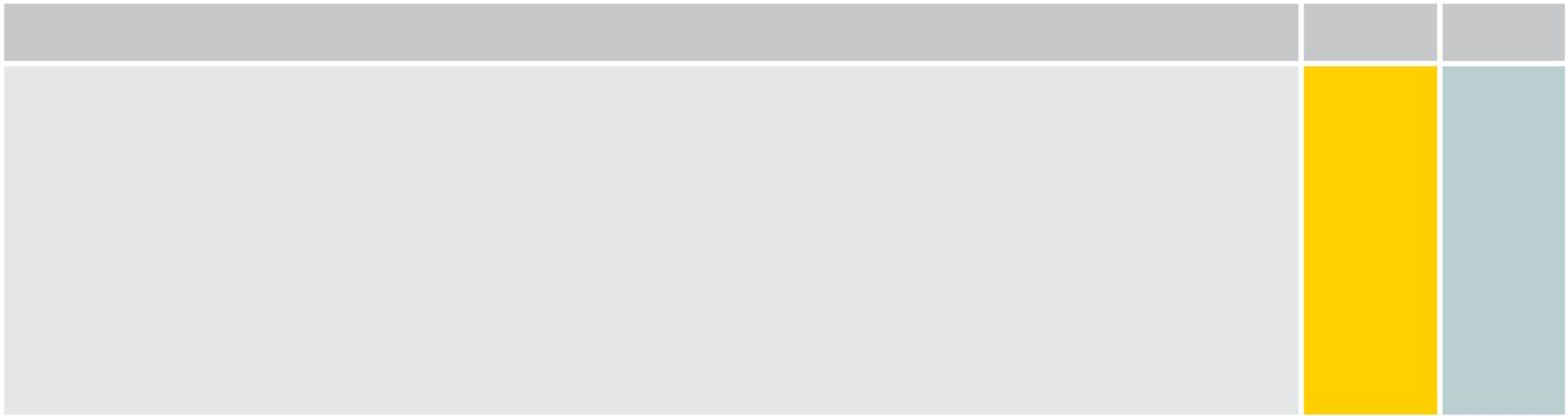

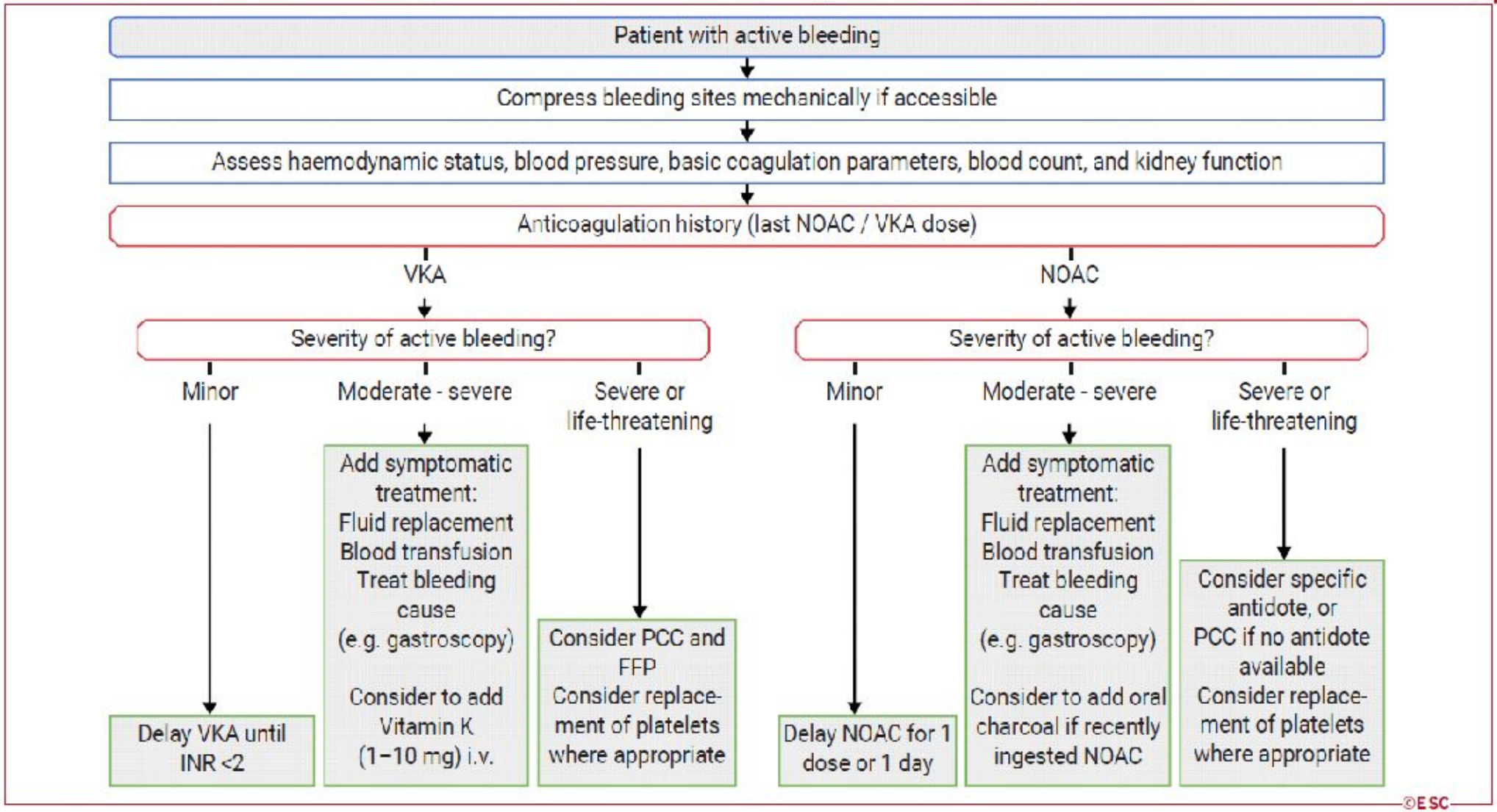
Patient with active bleeding
Compress bleeding sites mechanically if accessible
Assess haemodynamic status, blood pressure, basic coagulation parameters, blood count, and kidney function
Anticoagulation history (last NOAC / VKA dose)
VKA
NOAC
Severity of active bleeding?
Minor
Moderate - severe
Severe or life-threatening
Delay VKA until INR <2
Add symptomatic treatment: Fluid replacement Blood transfusion Treat bleeding cause (e.g. gastroscopy)
Consider to add Vitamin K (1–10 mg) i.v.
Consider PCC and FFP
Consider replace-ment of platelets where appropriate
Severity of active bleeding?
Minor
Moderate - severe
Severe or life-threatening
Delay NOAC for 1 dose or 1 day
Add symptomatic treatment: Fluid replacement Blood transfusion Treat bleeding cause (e.g. gastroscopy)
Consider to add oral charcoal if recently ingested NOAC
Consider specific antidote, or PCC if no antidote available
Consider replace-ment of platelets where appropriate
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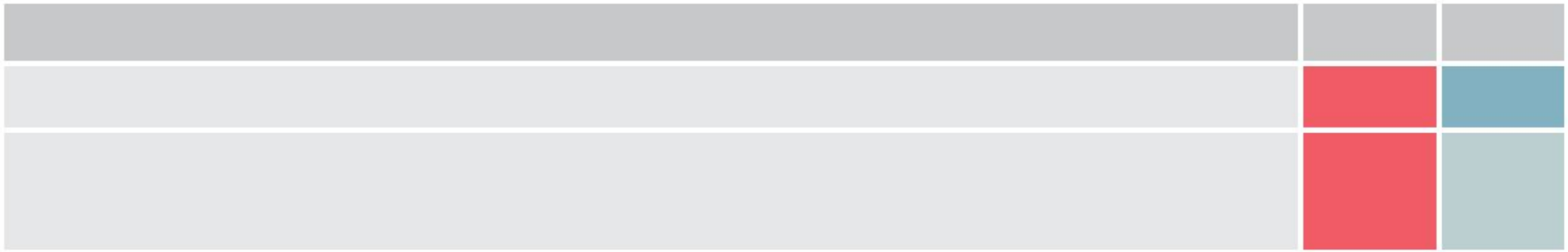

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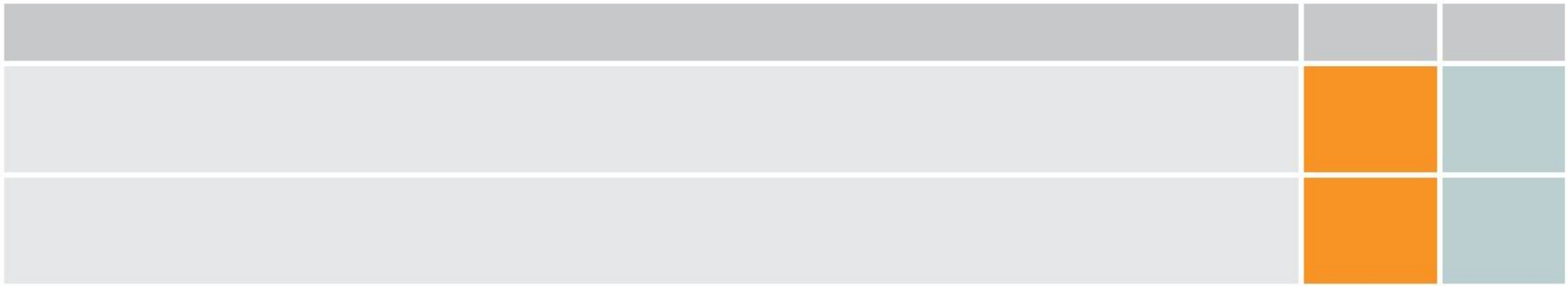

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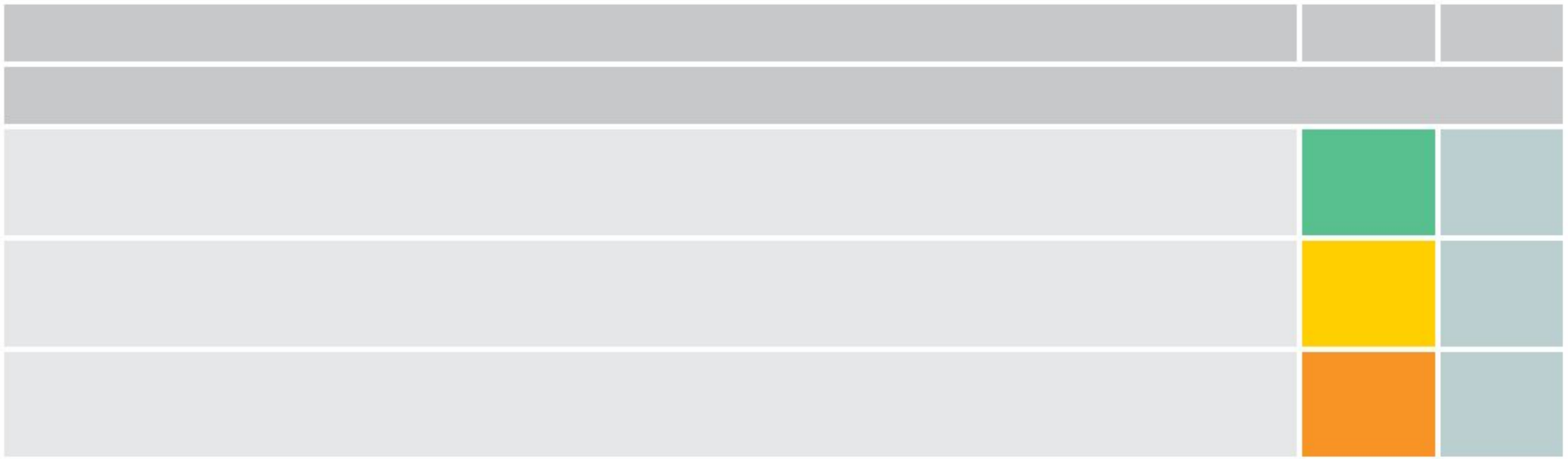

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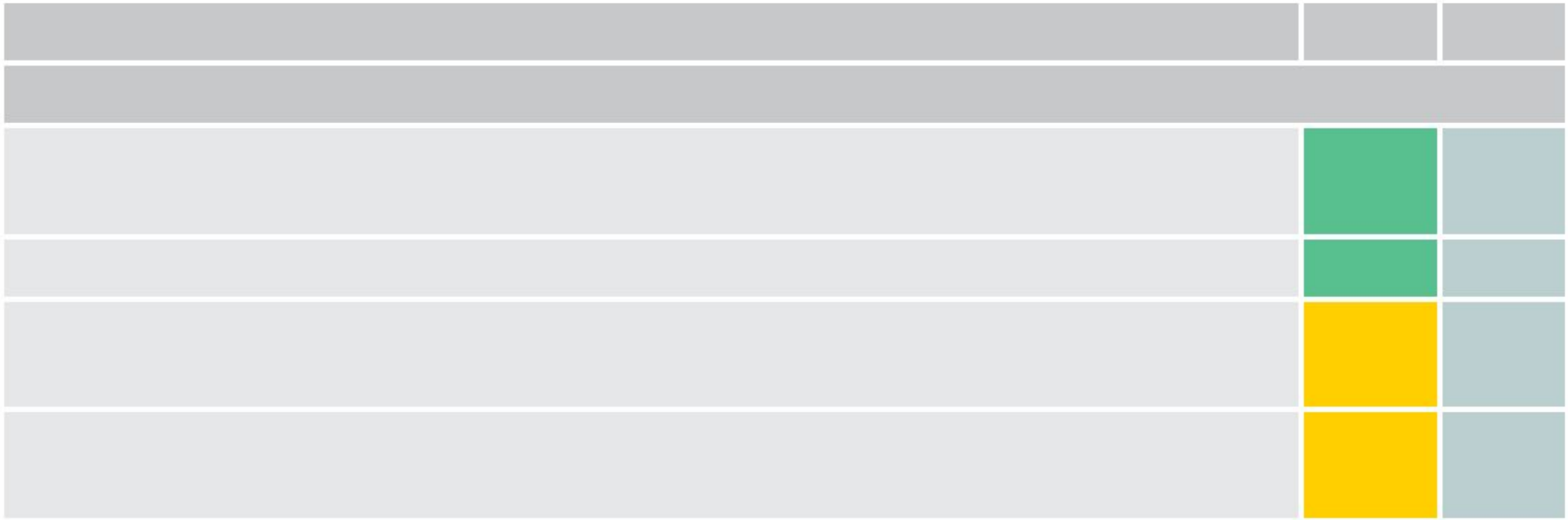

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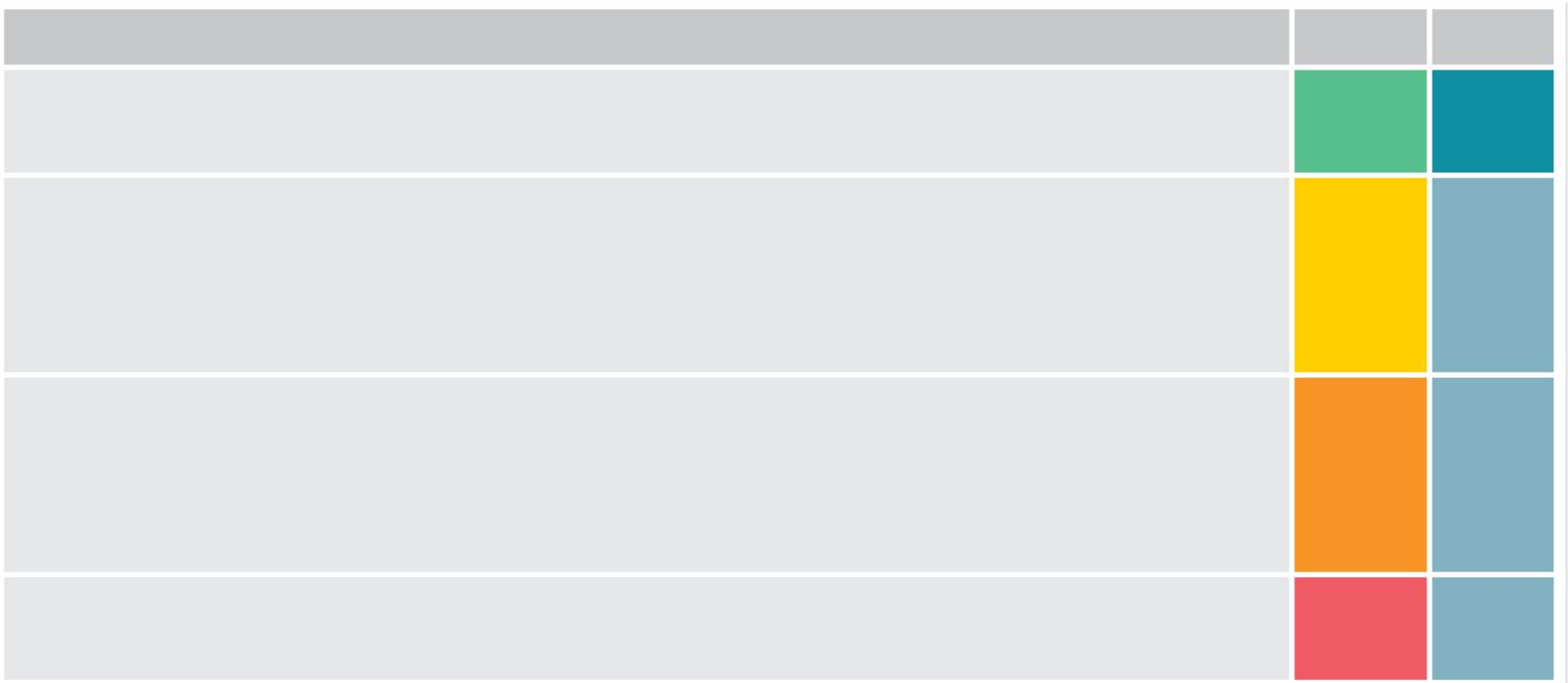

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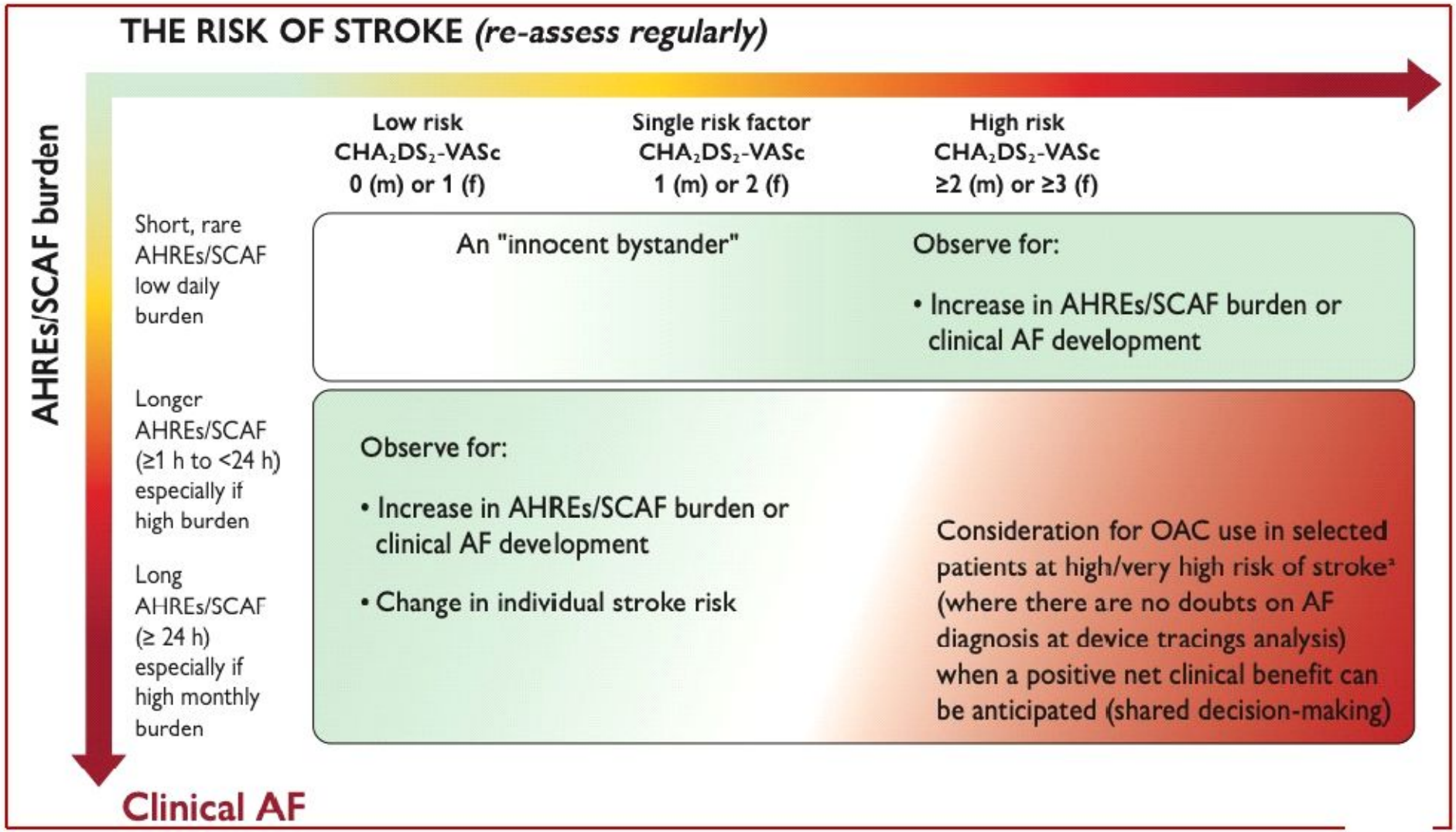
Six-month incidence of transition to higher AHRE burden[a]
(*n* = 6580, pooled from three prospective studies)

	Baseline burden			
6-month progression	5 min to <1 h	1 h to <6 h	6 h to <12 h	12 h to <23 h
Transition to ≥1 h	33.5%			
Transition to ≥6 h	15.3%	42.2%		
Transition to ≥12 h	8.9%	27.5%	55.8%	
Transition to ≥23 h	5.1%	16.0%	40.6%	63.1%

Stroke rates[b] per AHRE burden and CHA_2DS_2-VASc category
(*n* = 21 768 device patients not taking OAC)

	Baseline maximum daily burden		
CHA_2DS_2-VASc score	No AF	AF 6 min–23.5 h	AF >23.5 h
0	0.33%	0.52%	0.86%
1	0.62%	0.32%	0.50%
2	0.70%	0.62%	1.52%
3-4	0.83%	1.28%	1.77%
≥5	1.79%	2.21%	1.68%


THE RISK OF STROKE (re-assess regularly)
AHREs/SCAF burden
Low risk
CHA2DS2-VASc
0 (m) or 1 (f)
Single risk factor
CHA2DS2-VASc
1 (m) or 2 (f)
High risk
CHA2DS2-VASc
≥2 (m) or ≥3 (f)
Short, rare AHREs/SCAF low daily burden
An "innocent bystander"
Observe for:
• Increase in AHREs/SCAF burden or clinical AF development
Longer AHREs/SCAF (≥1 h to <24 h) especially if high burden
Long AHREs/SCAF (≥ 24 h) especially if high monthly burden
Observe for:
• Increase in AHREs/SCAF burden or clinical AF development
• Change in individual stroke risk
Consideration for OAC use in selected patients at high/very high risk of stroke[a] (where there are no doubts on AF diagnosis at device tracings analysis) when a positive net clinical benefit can be anticipated (shared decision-making)
Clinical AF

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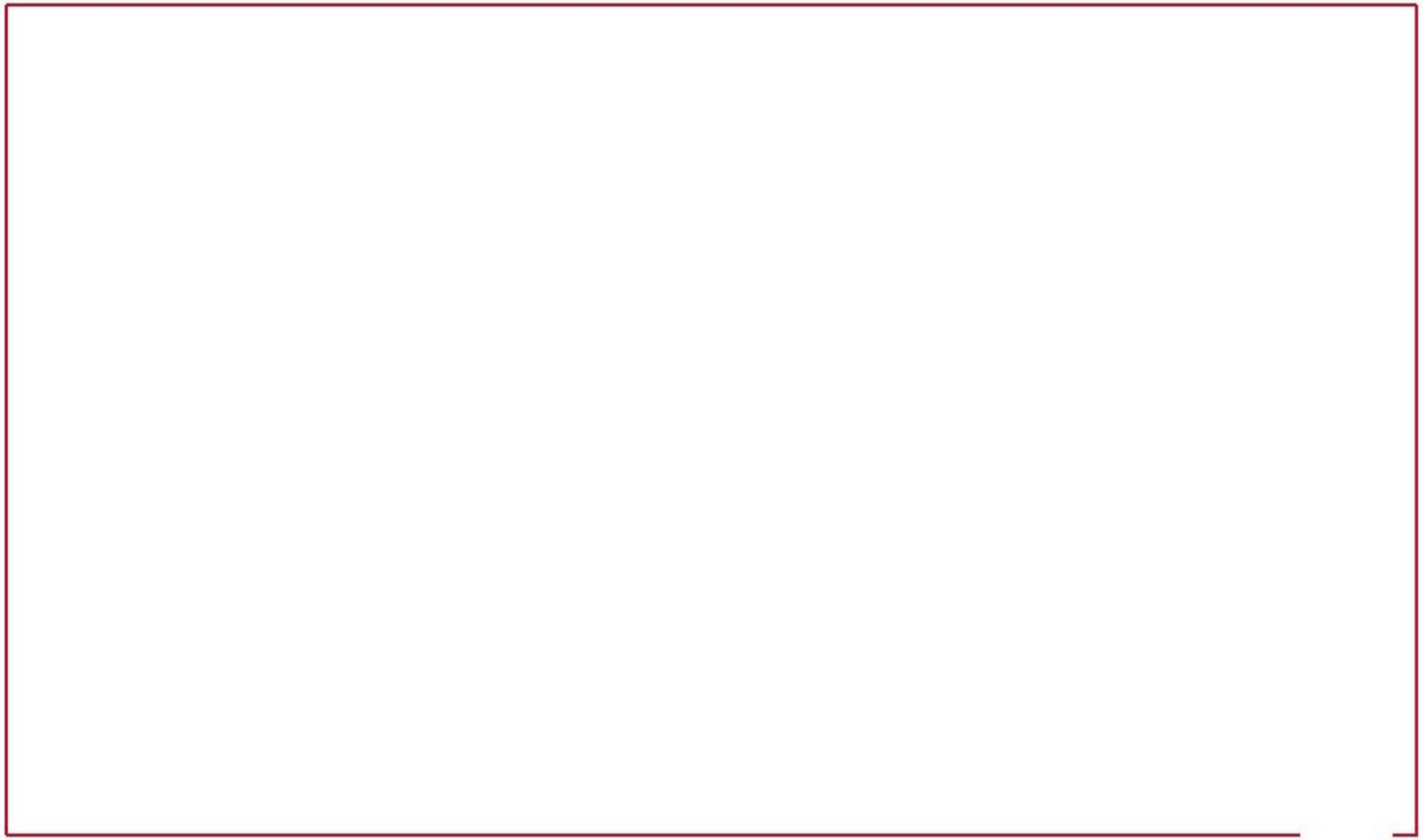

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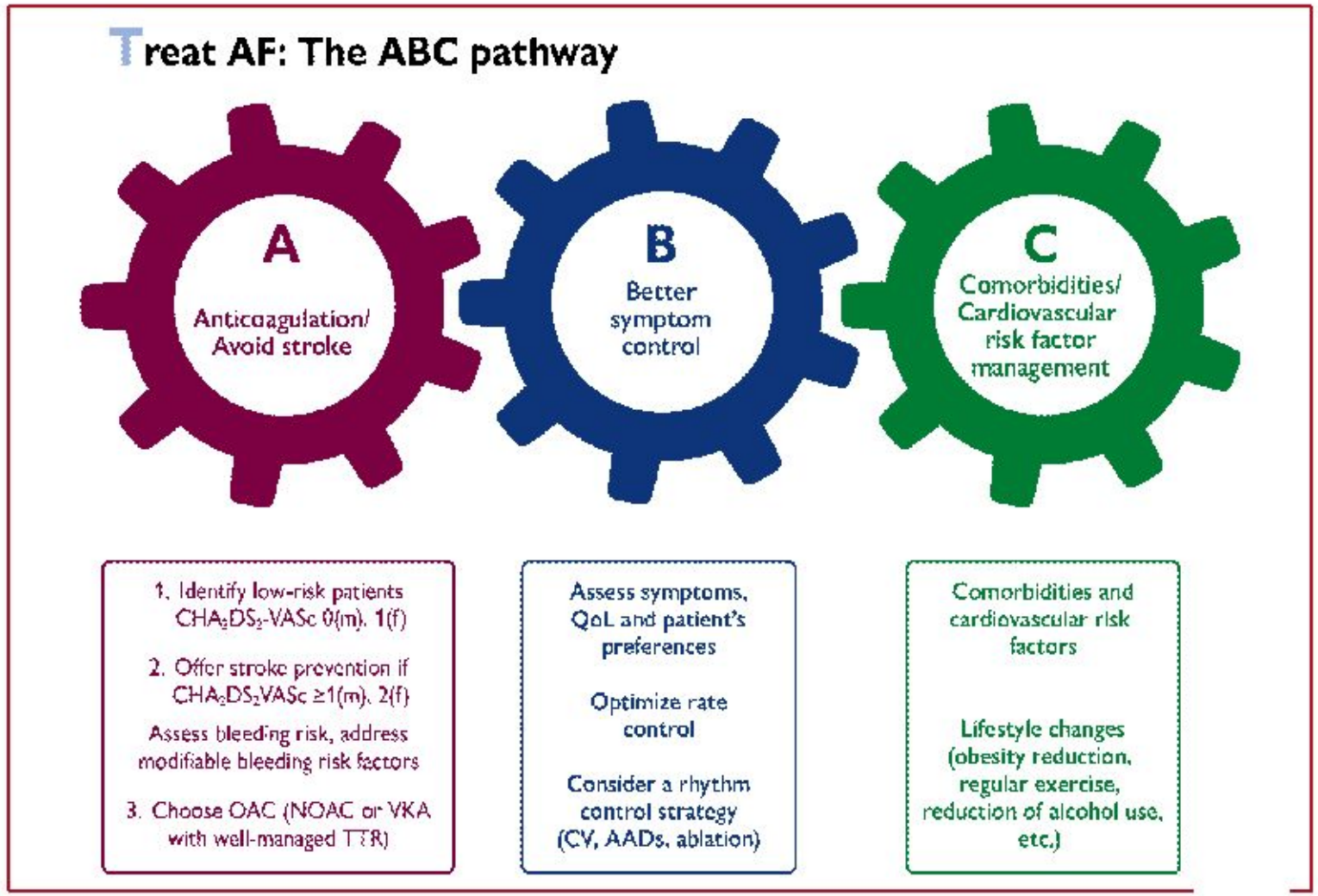

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