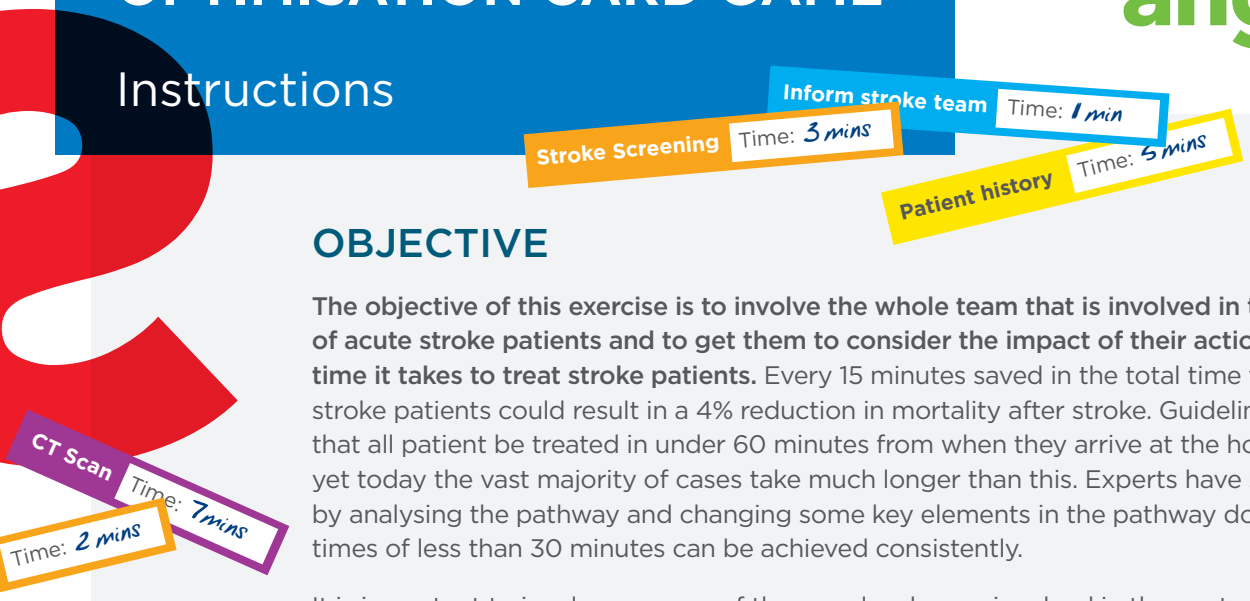
# HYPERACUTE PATHWAY OPTIMISATION CARD GAME

## Instructions




## OBJECTIVE

**The objective of this exercise is to involve the whole team that is involved in the treatment of acute stroke patients and to get them to consider the impact of their actions on the total time it takes to treat stroke patients.** Every 15 minutes saved in the total time taken to treat stroke patients could result in a 4% reduction in mortality after stroke. Guidelines recommend that all patient be treated in under 60 minutes from when they arrive at the hospital door, yet today the vast majority of cases take much longer than this. Experts have shown that by analysing the pathway and changing some key elements in the pathway door-to-therapy times of less than 30 minutes can be achieved consistently.

It is important to involve as many of the people who are involved in the acute treatment pathway as possible. Consider for example inviting not just the doctors and nurses involved but also representatives from the ambulance company, the admin staff that has to register incoming stroke patients, the radiology staff that manage the CT imaging as well as the clinical staff involved in analysing blood results.

## ACTIVITY

**Explain that the objective of the exercise is to understand everyone's role in the stroke treatment pathway and to brainstorm ways in which to optimise the pathway, thereby improving patient outcomes.**

### STEP 1:

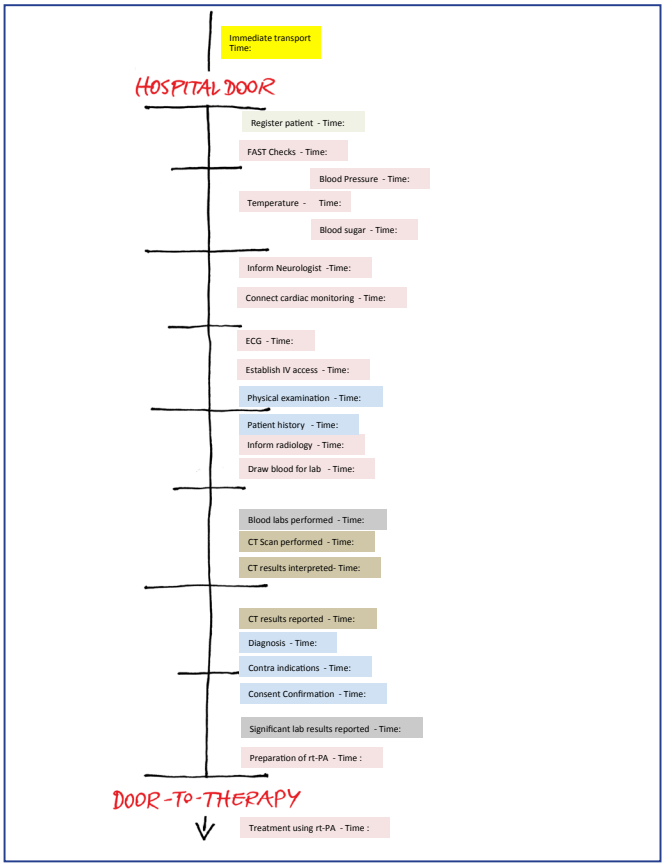
#### AUDIENCE EXPLAINS THE ACTIONS THEY TYPICALLY PERFORM

As a first step, ask everyone present to explain their role in the stroke treatment pathway, for example the ambulance paramedic might say that his job is to deliver the patient and to hand the patient over to the ED department. Audience members are prompted to identify specific activities they perform for every stroke patient. The admin person may say that they have to register the patient in the system before a CT scan can be booked and the nurse could say that she has to perform an ECG and take the blood pressure.

You will need to draw a simple verticle timeline that shows 'Hospital Door' to 'Door-to-Therapy' time. Divide the verticle line with 5 long and 4 short horizontal lines as shown in the example on the right.

The facilitator of the workshop identifies the color coded card that represents that activity the best and sticks it on the board on a vertical line (time line) at a point that represents a typical flow of the patient.

When everyone is finished and there are cards left that have not been mentioned like "Establish IV access" for example the relevant person is asked about if they also do the activity and if so the label is also placed on the timeline where it is typically performed.



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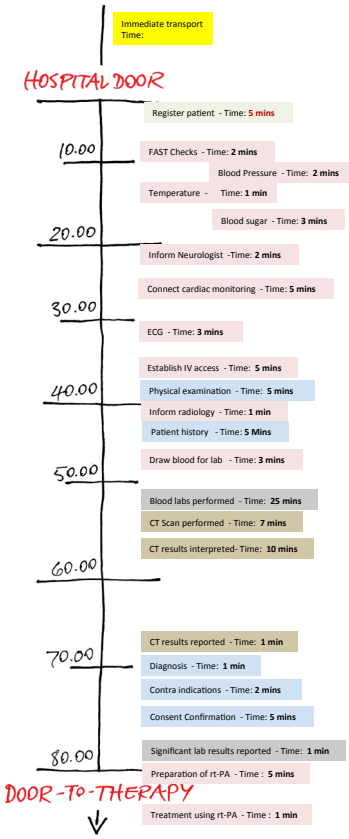
## Step 2:

### Add times to each activity to indicate how long each activity takes to perform

Audience members are now asked to estimate how long each activity takes to perform. It may take 2 minutes to perform a BP measurement and 1 to measure temperature, but it may take 15 minutes on average to interpret a CT scan.

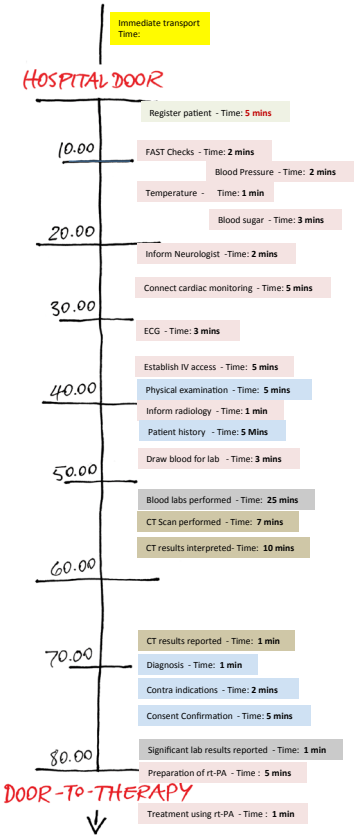
Move the labels on the timeline and add times to indicate how long the whole process will take to perform.




## Step 3:

### The heart attack challenge

The team is now asked if they are happy with the total time to treatment and if it reflects the reality. A good idea may be to now ask the team if they would still be happy with the total time if this was a heart attack patient for example instead of a stroke patient. The idea is to identify a “bright spot” where shorter times are achieved.

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## Step 4:
### Optimising the time to treatment

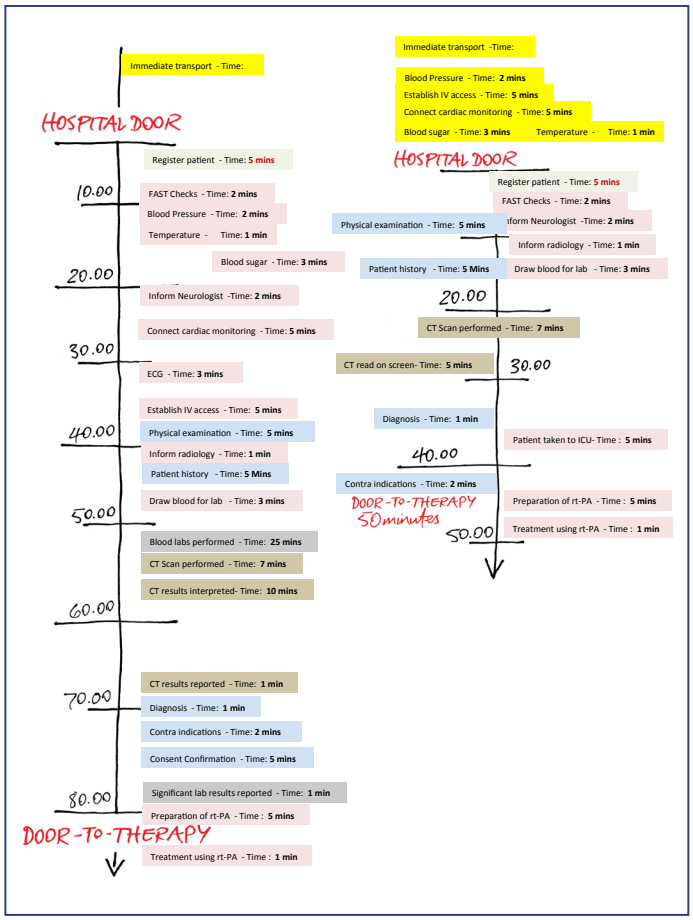
The next step is to now brainstorm potential ways of shortening the door-to-therapy time. Analyse each step. Discuss whether the action is absolutely necessary to perform before the treatment decision is made and if so what could be done to shorten the time it takes to perform.

Always consider other bright spots for example, in emergency transplantations a special code is often used to register patients quicker.

**Consider the potential effect of the following:**

- The **ambulance** performing specific tasks before they arrive e.g. inserting IV lines, doing blood glucose tests etc.
- Working in **parallel**
- Performing some action that are not critical for making the treatment decision, only **after the treatment** has been given

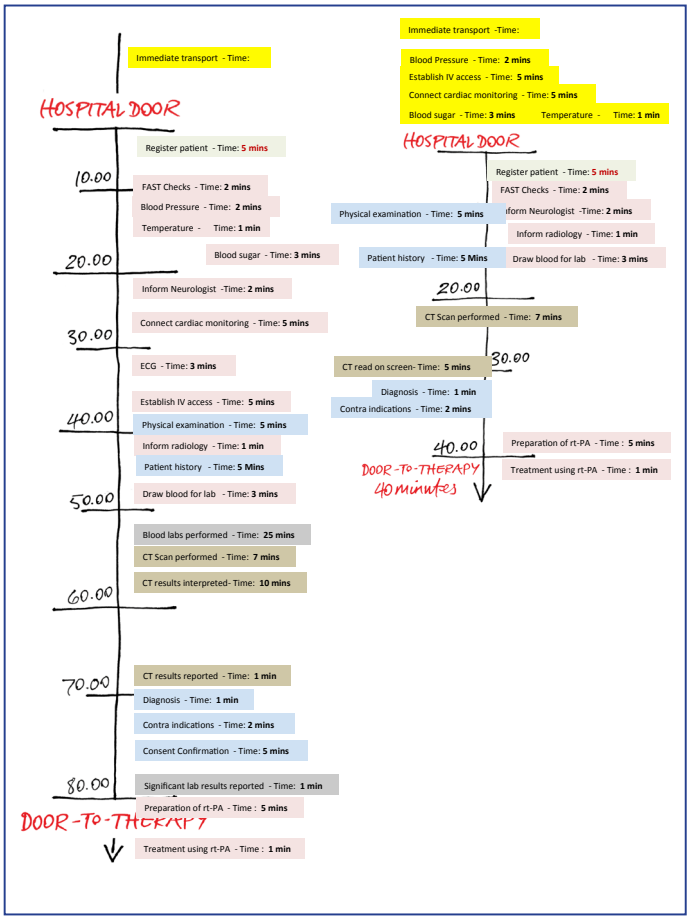
Show the potential new pathway in a new timeline next to the original timeline to visualise the effect.




## Step 5:
### Fine-tuning the pathway

Finally consider whether the 4 priority actions that has been shown to reduce door-to-therapy time has been implemented and if they could make an even further difference.

1. **Pre-notification by ambulance**
2. **Direct to CT**
3. **Point of Care testing**
4. **Treat at CT**

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## CARDS

Cut out 4 sets

There are 4 sets of “card” strips.

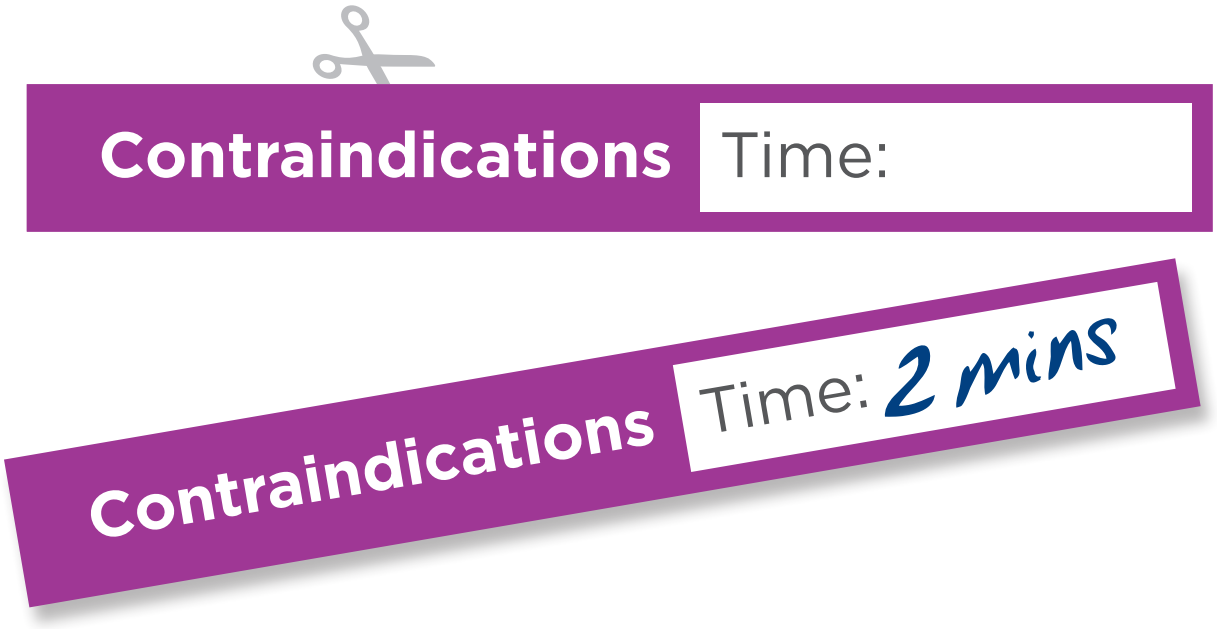
**Emergency Services** = Orange

**Emergency Physician** = Purple

**Nurses** = Blue

**Stroke Physician** = Yellow

Cut out each of the following cards to use in your activity, writing the times on to the cards as you complete each step.



| | |
|---|---|
| **Immediate Transport** | Time: |
| **Stroke Screening** | Time: |
| **Hospital Notification** | Time: |
| **Blood Sugar Test** | Time: |
| **Blood Pressure** | Time: |
| **Patient Current & Recent Medical History** | Time: |
| **Medication** | Time: |
| **ABC's** | Time: |



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Absolute Contraindications For rt-PA

Time:

FAST Checks

Time:

Inform Stroke Team

Time:

Inform Radiology

Time:

Inform Clinical Lab

Time:

Transfer To CT

Time:

Establish IV Access

Time:

Blood Sugar
Time:

INR
Time:

Connect Cardiac Monitoring
Time:

Start O2
Time:

Temperature
Time:

Heart Rate
Time:

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**Respiratory Rate**

Time:

**Draw Blood For Lab**

Time:

**Blood Pressure**

Time:

**Patients Weight**

Time:

**Determine Time Last Known Well**

Time:

**ECG**

Time:

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Time:

**Patient History**

Time:

**Physical Examination**

Time:

**NIHSS Stroke Assessment**

Time:

**Contraindications**

Time:

**CT Scan**

Time:

**CT Analysis**

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Time:

**Diagnosis**

Time:

**Significant Lab Results Reported**

Time:

**Consent Confirmation**

Time:

**Treatment Using rt-PA**

Time:

**Further Scans**

Time:

**Preparation Of rt-PA**

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Patient History

Time:

Physical Examination

Time:

NIHSS Stroke Assessment

Time:

Contraindications

Time:

CT Scan

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CT Analysis

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**Diagnosis**
Time:

**Significant Lab Results Reported**
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**Consent Confirmation**
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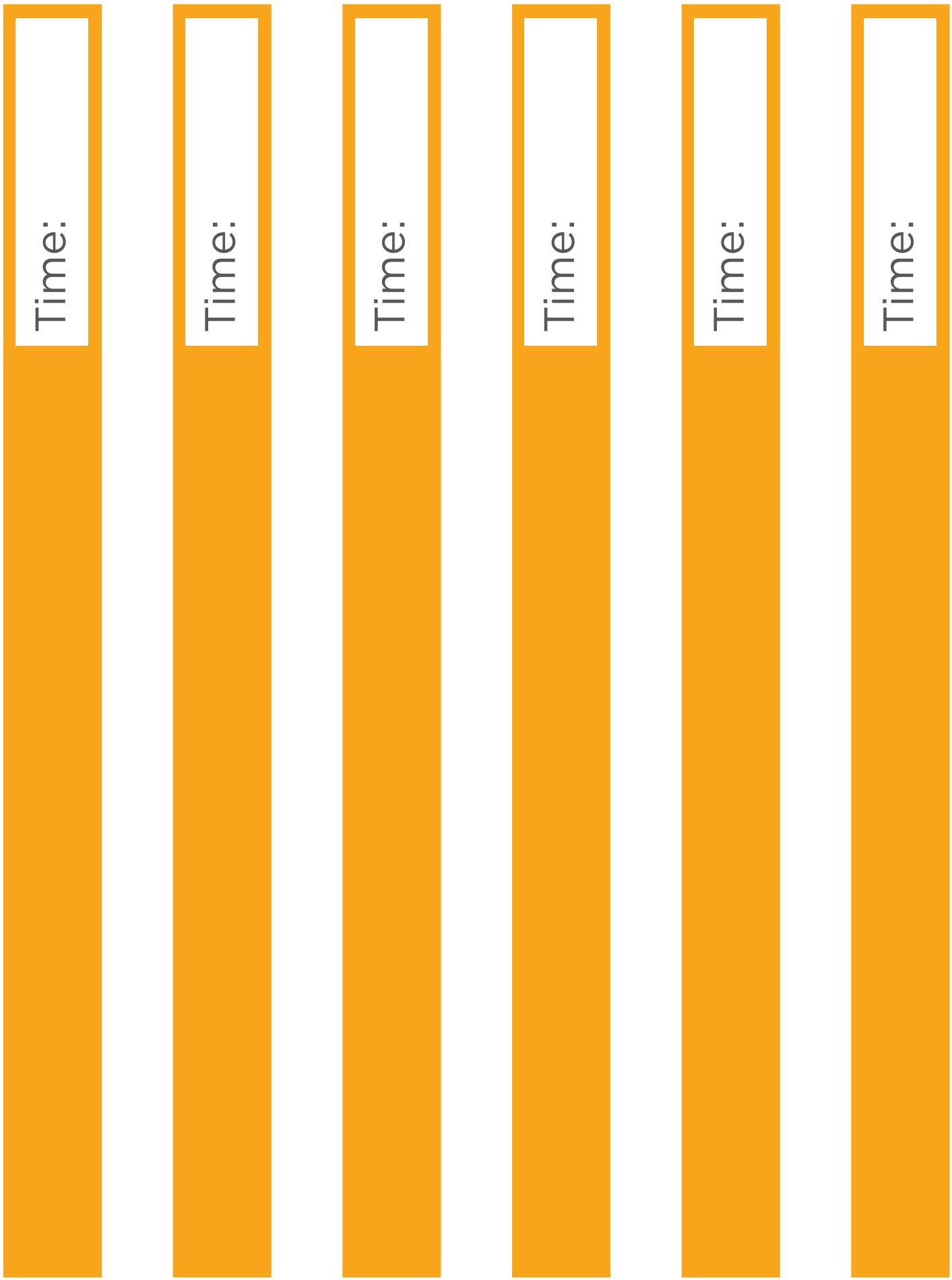

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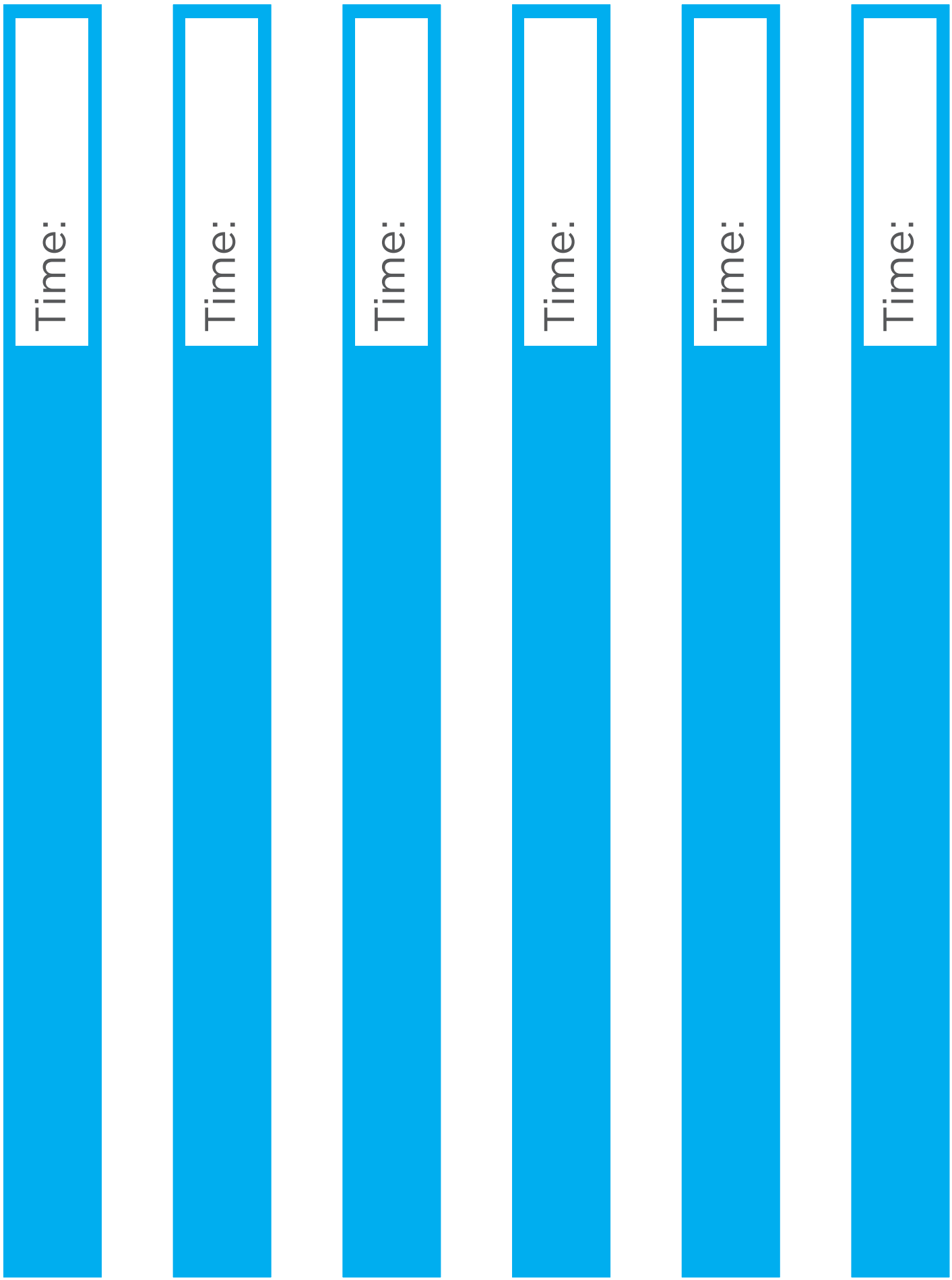

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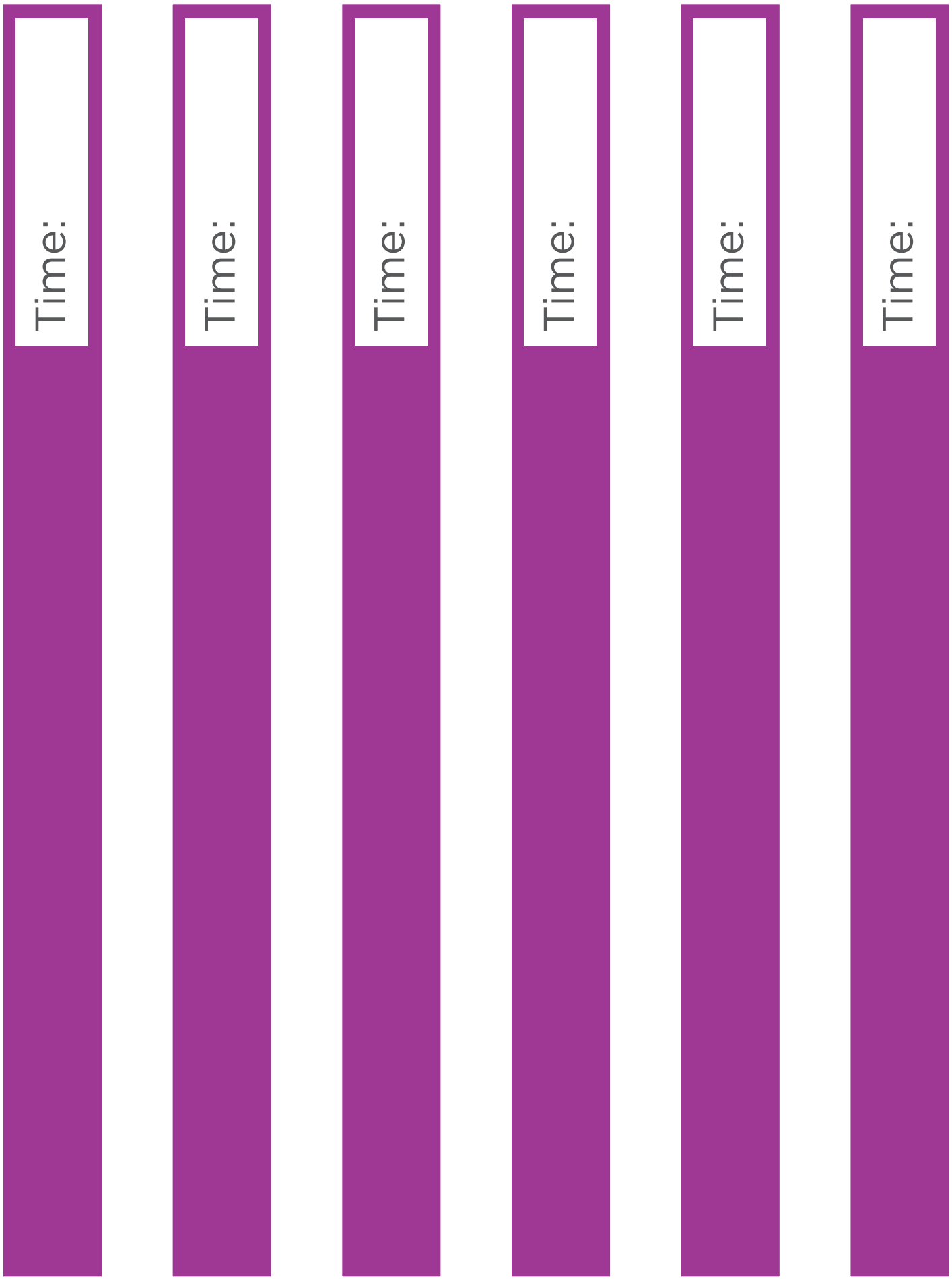
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