..ncvd..
national cardiovascular disease database
e-Newsletter
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# GREETINGS!

## NOTE FROM THE NCVD manager's desk

NCVD, the dream of cardiologists… kicked off well with ACS registry in 2006 and PCI registry in 2007.

NCVD is growing from day to day. There is a continuous support and encouragement from participating sites and committee. Hats off!

Here, we publish our own 1st NCVD e-newsletter. This would be source of information and updates for users.

The success of NCVD is in YOUR hands!

Best wishes!

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## The CHAIRMAN of NCVD says….

### National Cardiovascular Disease Database (NCVD) Malaysia

It has been 18 months since we first met to plan for the NCVD with the ACS Registry to be the first among many more registries. We had the ACS Registry's eCRF going in January 2006, 3 months after we met! Since then the data collected to date has been presented in various scientific meetings. Without everyone's sacrifices from contributing the data, the secretariat based at CRC HKL lead by Ms Guna and the financial grant from the Ministry of Health Malaysia and National Heart Association of Malaysia, we would not have been able to move so far. A number of countries such as Australia, Singapore (probably will be compulsory participation soon) and Thailand are all talking about a national CV disease database but at least Malaysia has moved beyond NATO – "No Action Talk Only".

This marks the beginning of more hard work, the questions of adding value and eventually the sustainability. We need more centres participating so that it can be truly the national data; and for those centres already participating, there need to be substantial improvement in the quality of the data - with the missing data and incomplete data filled ASAP, we need more doctors to volunteer in the technical committee, the publications committee, etc so that we can add value to the data that we have collected, so as to make a difference to our clinical practice and to contribute to the scientific knowledge of the cardiovascular disease regionally and beyond. Hopefully, the 1st Annual Report of the ACS Registry of the NCVD will be completed by year end.

The PCI Registry which has a close collaboration with the Melbourne Interventional Group (MIG) was online in January 2007. Please allow me to share with you the tremendous response, within 6 months there were ~ 2,500 patients!

There were many hurdles – Political, Resources, Motivational and Cognitive but together, through innovation & pro activeness, we can do something for ourselves, for the next generation and for the country. Let's not be arm chair critics or be part of the "guesstimate" team but to do something while you still can make a difference rather than regretting later that you have retired in a "third world" country!

Please encourage your colleagues to participate and motivate those already participating to maintain the best quality rather than NUTS – "Not Up To Standard".

I welcome your comments and shall be happy to receive your contributions for this newsletter.

## LET'S SHARE!

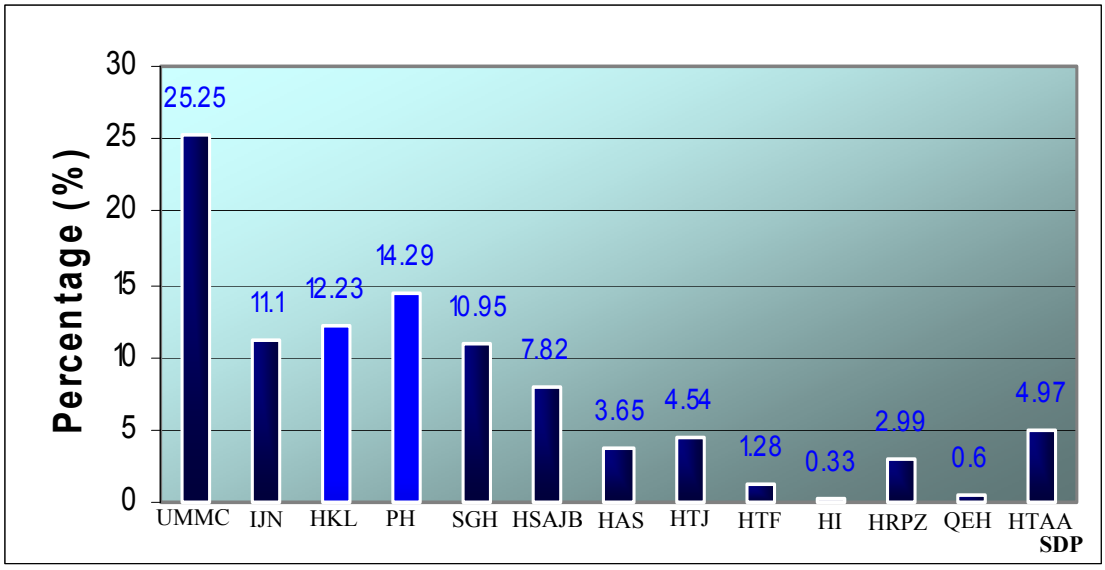
- Current statistics
- FAQ
- Updates from similar registries
- Updates from trials that may affect us

## ANNOUNCEMENT!!!

- NCVD ACS Registry has completed its 1st year of data collection. Currently, the committee are working towards publishing very the 1st report.
- The National Conference of Clinical Research (NCCR) had been scheduled on 24-26th Oct. 2007 at Berjaya Times Square, Kuala Lumpur. Would like to know more? Please visit this link http://www.crc.gov.my/meetings/documents/NCCRbrochure.pdf

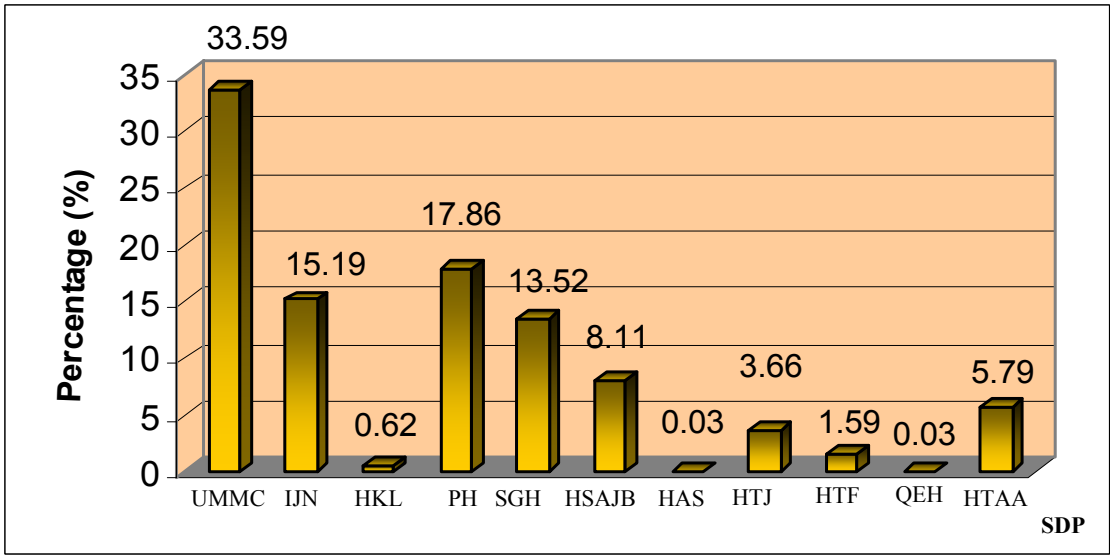
## *Current Statistics (as of 18th August 2007)*

**Figure 1 : ACS Registered Online By Source Data Providers (SDP)**



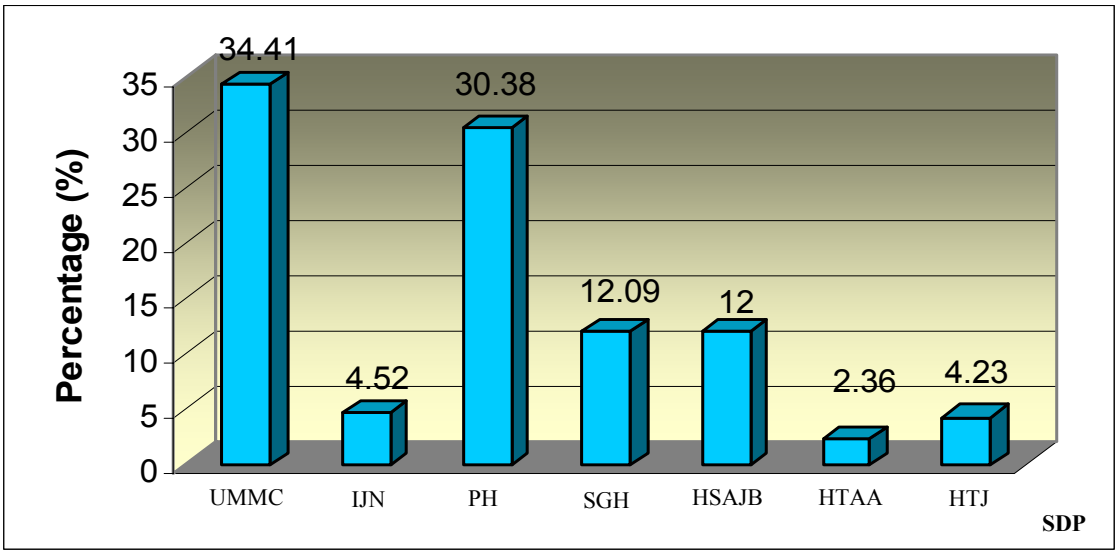

Total ACS = 5, 152 as of 18th August 2007

**Figure 2 : ACS 30 days Follow Up Completed by SDP**




Total 30 days FU = 3, 712 as of 18th August 2007

**Figure 3 : ACS 12 months Follow Up Completed By SDP**




Total 12 months FU = 1, 017 as of 18th August 2007

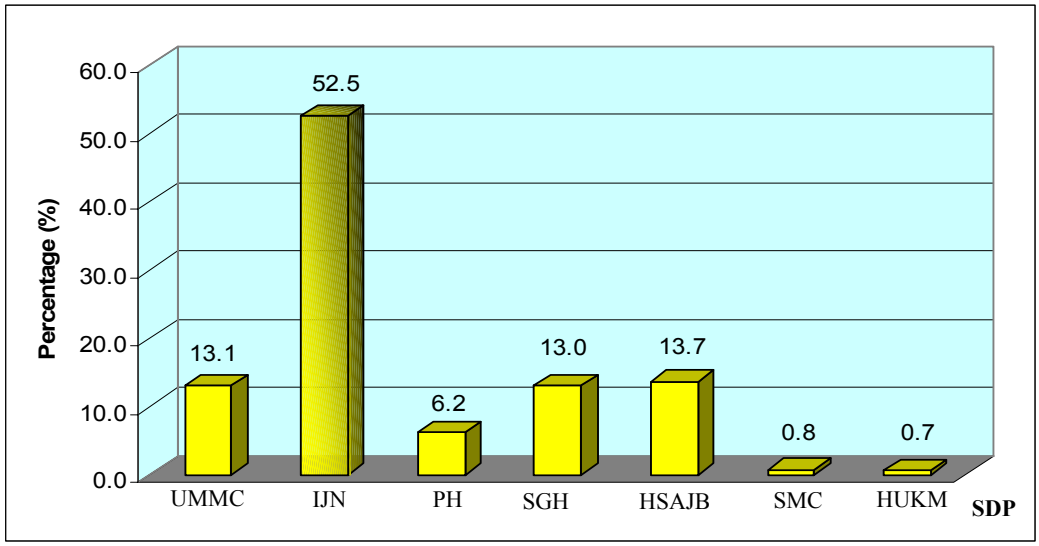
**Table 1 : ACS Outcome at Notification**

| ACS In-hospital Clinical Outcome n = 5, 152 | |
|---|---|
| **Outcome** | **%** |
| Discharged | 40.02 |
| Transferred | 0.41 |
| Died | 2.99 |
| NA | 56.58 |

**Table 2 : ACS Outcome at Follow Up for 30 days and 12 months**

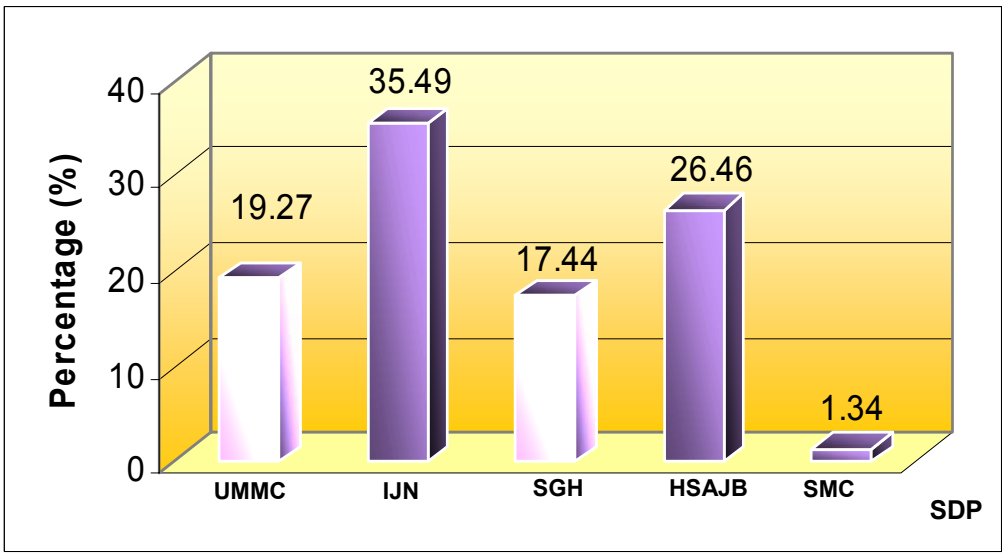
| | n = 3, 712 | n = 1, 017 |
|---|---|---|
| **Outcome** | **30 days (%)** | **12 months (%)** |
| Alive | 83.35 | 84.07 |
| Death | 2.96 | 2.85 |
| Lost to Follow Up | 8.05 | 11.11 |
| Transferred | 0.13 | 0.2 |
| Missing | 5.49 | 1.77 |

**Figure 4 : PCI Registered Online by SDP**



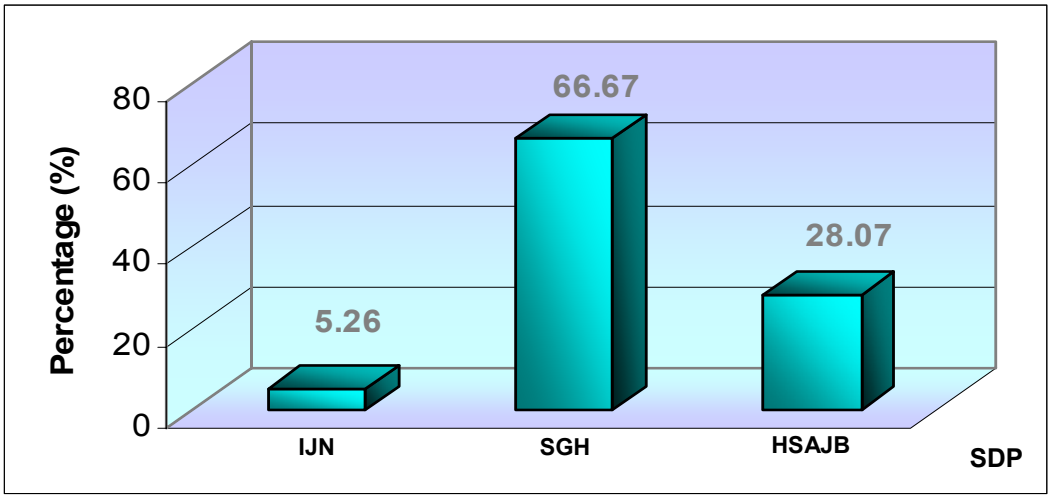

TotaL PCI = 1, 903 as of 18th August 2007

**Figure 5 : PCI 30 days Follow Up Completed By SDP**




TotaL FU Completed = 820 as of 18th August 2007

**Figure 6 : PCI 6 months Completed By SDP**




TotaL FU Completed = 57 as of 18th August 2007

**Table 3 : PCI Outcome at Notification**

| PCI In-hospital Clinical Outcome n = 1, 903 | |
|---|---|
| Outcome | % |
| Alive | 93.1 |
| Transferred | 0.1 |
| Death | 1.2 |
| Missing | 5.6 |

**Table 4 : PCI Outcome at Follow Up for 30 days and 6 months**

| | n = 820 | n = 57 |
|---|---|---|
| **Outcome** | **30 days (%)** | **6 months (%)** |
| Alive | 94.51 | 100 |
| Death | 0.49 | |
| Lost to Follow Up | 4.51 | |
| Transferred | | |
| Missing | 0.49 | |

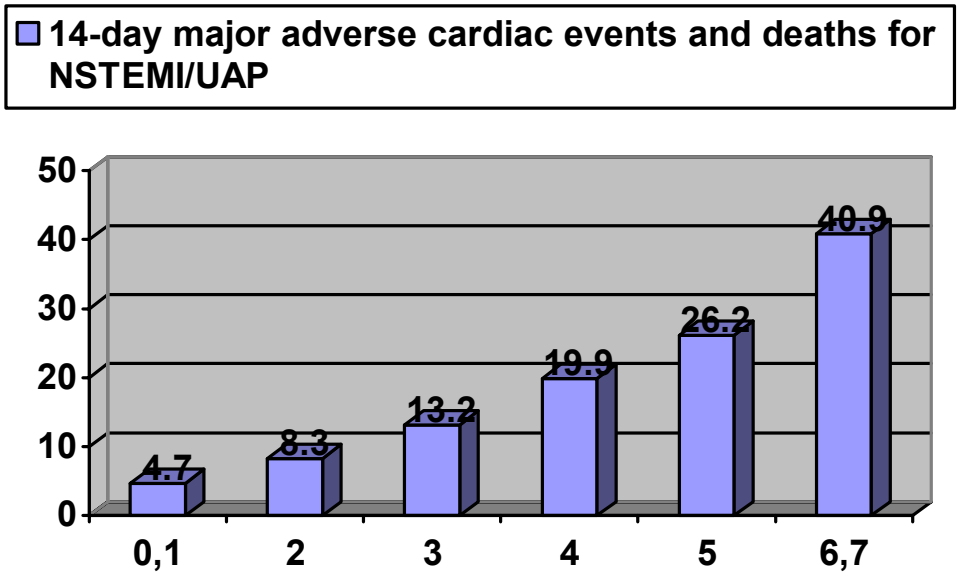
*You may have heard of the term "TIMI".*

TIMI stands for the Thrombolysis in Myocardial Infarction Study Group. The **TIMI Risk Score** is a useful and simple tool to estimate the risk of cardiac events for a patient who recently had an acute coronary event. Designed and validated in the U.S. [1] for patients with unstable angina and non-ST-segment elevation MI (NSTEMI), it comprises 7 risk score predictor variables which together categorize the patients at risk of developing fatal or non-fatal MI or requiring urgent revascularization within the next 14 days. See Table 1 and Figure 1.

**Table 1: Important Prognostic Risk Factors for Patients with UAP or NSTEMI.**

| The 7 important risk factor score predictor variables are: |
|---|
| Age 65 years or older, |
| At least 3 risk factors for coronary artery disease, |
| Prior coronary stenosis of 50% or more, |
| ST-segment deviation on electrocardiogram at presentation, |
| At least 2 anginal events in prior 24 hours, |
| Use of aspirin in prior 7 days, and |
| Elevated serum cardiac markers. |

**Figure 1: 14-day Risk of fatal and non-fatal MI, heart failure and urgent revascularization for patients with UAP/NSTEMI.**




A similar scoring system was applied for patients with ST-elevation MI (STEMI) which provides a 30-day mortality risk [2]. See Table 2 below.

**Table 2: TIMI Risk Score for Patients with STEMI and predicted 30-day Mortality**

| Clinical Parameters | Points | Risk Score | 30-day Mortality |
|---|---|---|---|
| Age ≥ 75 | 3 | 0 | 0.8 |
| Age 65-74 | 2 | 1 | 1.6 |
| Diabetes, Hypertension or Angina | 1 | 2 | 2.2 |
| Systolic BP < 100mmHg | 3 | 3 | 4.4 |
| Heart rate > 100bpm | 2 | 4 | 7.3 |
| Killip class II and above | 2 | 5 | 12 |
| Weight < 67 kg | 1 | 6 | 16 |
| Anterior ST elevation or LBBB | 1 | 7 | 23 |
| Time to thrombolysis > 4hrs | 1 | 8 | 27 |
| Total Score points = 0-14 | | > 8 | 36 |

However these risk algorithms may not be universal and need to be validated in different setting and populations [3]. That is why one of the important roles of the NCVD ACS registry is to confirm that these risk factors apply to our patients, and if not, then to devise our own risk score algorithms.

***The success of this pioneering high-impact efforts depend on us! So let's begin to fill in those missing fields!***

References:


1. Antman et al. JAMA. 2000;284:876-8.
2. Morrow et al. Circulation 2000;102:2031-7
3. Rathore et al. Am Heart J 2005;150:371-2.


*Posted by: SP Chin*

## *Updates from trials that may affect us*

In terms of adjunctive pharmacotherapy for PCI, the **ACUITY** investigators has announced the 1-year result in recent ACC meeting. Overall, the use of novel anti-thrombin Bivalirudin with or without GPI (glycoprotein IIb/IIIa inhibitor), as compared to UFH/Enoxaparin with GPI, were comparable at the end of 1-year in terms of ischaemic composite endpoint (death, MI, unplanned revascularization for ischaemia). At 30-day and 1-year, mortality rates were similar amongst the 3 groups. In the **ISAR-REACT 2** trial, high-risk ACS patients undergoing PCI, who were pretreated with Clopidogrel 600mg for at least 2hr before PCI, were randomized to Abciximab vs placebo. The Abciximab group had 25% reduction of MACE at 30-day (8.9% vs. 11.9%, p=0.03), primarily driven by periprocedural MI. At 1-year, subgroup analaysis revealed that the benefit of Abciximab was restricted to subgroup of high risk-ACS with elevated Troponin-T (>0.03).This is consistent with similar findings in PURSUIT, CAPTURE and TACTICS.

Two DES randomized controlled trials for STEMI were reported in ACC last year, **TYPHOON** for Sirolimus, and **PASSION** for Paclitaxel. After 1 year, the Sirolimu-stent group showed a 49% reduction (7.3% vs. 14.3%) in target vessel failure, and thus far, no excess late MI of stent thrombosis. As for Paclitaxel-stent group showed no statistical significant benefit on primary endpoint of MACE (8.8% vs. 12.8%, p=0.09) although trends toward lower TLR.

During the TCT late-breaking trial session, the **SORT-OUT** trial is a "real-world" study involving 5 Danish centre, followed up patients who underwent planned PCI with DES, through national health database and death registry. Comparison was made between Cypher and Taxus DES. This study showed no difference in MACE at 9-months.

As for new DES on the block, the **SPIRIT III** randomized trial of Everolimus-eluting stent (Xience V) vs. Paclitaxel (Taxus) stent, the primary endpoint of in-segment late loss at 8 months was significantly lower with the Xience V stents, 0.14mm vs. 0.28mm (p=0.004). The new DES also showed lower MACE at 9 months (4.6% vs. 8.1%, p=0.03).

In the wake of the **COURAGE** and **OAT** trials, interventional cardiology has a new foe, and its name is optimal medical therapy. The COURAGE trial results implied that interventional cardiologists are implanting stents when medical therapy would do just as well. At 7-year follow-up, PCI on topped of "optimal medical therapy" showed no survival benefit. In terms of angina status, the PCI group fared better at 1- and 3-year follow-ups, however, no difference by end of 5 years. The OAT trial randomized stable patients with total occlusion of IRA at 3-28 days post-MI. Patients at "increased risk", defined as an EF<50%, proximal occlucion of major vessel with a large risk territory, or both, were randomized to PCI vs. medical therapy. Majority of these post-MI patients were stable (class I), untreated (lytic 20%), non-ischaemic, single-vessel (82%), and mean time from MI was 8 days. Primary composite endpoint of death, re-MI or class IV heart failure was non-significant at 4 years.

*Posted by: HB Liew*

## FAQ

1. Duplication of the same patient or notification commonly seen in the database. How to avoid double-entry of patients?

   To avoid double-entry of patients, users must perform SEARCH before registering a patient in the system. If the system shows that the identification number does not exist in the system, then the user may proceed on registration.

2. In case of mistakenly duplicated patient, how do you go about it?

   If mistakenly duplicated the patient's data, request to delete by click on the Request to Delete button of the duplicated patient ID or notification ID.Click on the Request to Delete button. Once clicked, the colour of the button will change and the request will be listed in Request to Delete List in the Alert page.

   Registry Manager will do the necessary from there on.

## THOUGHT of the DAY

Alone we can do so little; together we can do so much.
*Helen Keller*

**THANK YOU to all of you who had and continue contributing to NCVD …….**
**Remember you are part of history making!**



## ANY PROBLEMS? WE ARE HERE TO HELP YOU…….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