## 海外発表のコツを教えます!!



日本臨床工学技士会 国際交流委員会 委員/東亜大学 医療学部医療工学科 特任准教授

楢村 友隆

## 国際学会 発表までの流れ

## 発表までの準備:

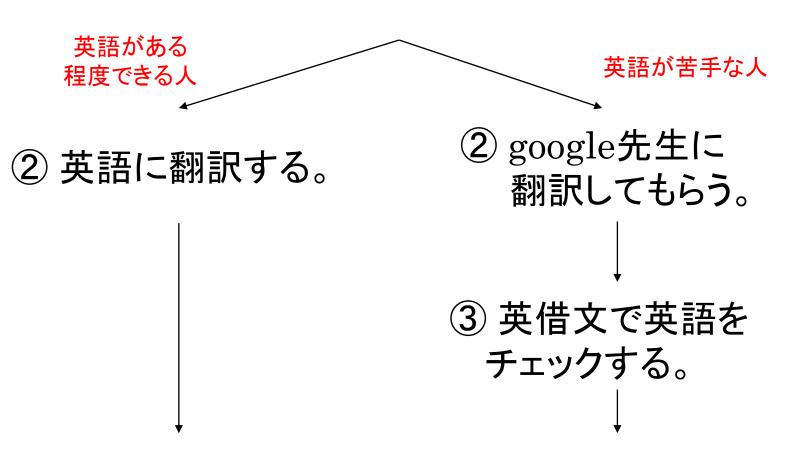
- 抄録作成
- 抄録登録
- 参加登録
- スライド作成

## 発表当日:

- スライド登録
- 発表
- 質疑応答

## 英文抄録の簡単な作成方法

① 日本語で抄録を作成する。



- ③ ネイティブチェックを受ける。
- 4 ネイティブチェックを受ける。

## 一般的な抄録の構成

① Introduction Background Aim

2 Objects and Methods
Materials and Methods

3 Results

4 Conclusions
Discussions

#### Development of the real-time monitoring system of the bacteria in dialysis fluid.

Tomotaka Naramura<sup>1,2</sup>, Kazuma Sekimoto<sup>2</sup>, Shingo Takesawa<sup>2</sup>

<sup>1</sup>Department of Medical Risk and Crisis Management, Faculty of Risk and Crisis Management, Chiba Institute of Science, ...

2 R&D Center, Rion Co.Ltd.,

<sup>2</sup>Graduate School of Health Sciences, Kyushu University of Health and Welfare

#### Introduction

The contamination management of dialysis fluid is indispensable and it is very important for it how the fault is detected quickly. However, by the conventional bacteria detection method like the cultivating method, a result cannot be fed back immediately but the subject still remains in aspect of safe...

In order to solve those problems, we have examined the bacteria detecting methods independent of cultivating operation focusing on fluorescence staining, by making rapid, high accuracy, and high precision into a keyword. However, it has been difficult to monitor bacteria in real-time without removing preprocessing such as a sampling or the dyeing...

We developed a world's first real-time monitoring system of the bacteria which does not need sampling and pretreatment operation...

#### Objects and Methods

In the new equipment, a sample liquid is poured to a flow cell, and is irradiated with 405nm laser light continuously. A particle in a liquid emits dispersion light, and further, when this particle is a viable particle, it emits fluorescence by a substance in the living body. Dispersion light and fluorescence are separated by the dichroic-mirror, and each number of particles is counted and displayed in real-time. ...

Using this equipment, fluorescence standard particles, the standard bacteria, and the separation bacteria from dialysis fluid were suspended in dialysis fluid, and the spike examination was done.

Further, the real-time monitoring tests were performed by connecting with dialysis equipment.

#### Results

From the spikes examination using a fluorescence standard particle, standard bacteria and dialysis fluid separation bacteria, this equipment was shown to have superior detection ability...

Moreover, it was confirmed that the contamination which may take place suddenly is fully detectable by the real-time monitoring system connecting with dialysis equipment.

#### Conclusion

New bacterial real-time monitoring system was confirmed that it can detect the amount of bacteria existing in dialysis fluid rapidly with high accuracy and high precision without performing a sampling and preprocessing operation...

It seems that this equipment greatly contributes to the contamination management of the dialysis fluid...



テキストまたはウェブサイトのアドレスを入力するか、ドキュメントを翻訳します。



東南アジア諸国における透析患者数と透析施設数は年々増加しておりこの数は今後も増加し続けるものと思われ、透析治療が黎明期を迎えたことで近年では透析関連合併症予防を見据えてHDF治療の施行や高性能膜の使用が検討されている。

The number of dialysis patients and the number of dialysis facilities in Southeast Asian countries are increasing year by year, and this number is expected to continue to increase and dialysis therapy has reached the dawn phase, and in recent years, in view of prevention of dialysis related complications, HDF implementation of therapy and use of high performance membranes are being studied.

東南アジア諸国における透析患者数と透析施設数は手々増加しておりこの数は今後も増加し続けるものと思われ透析治療が黎明期を迎えたことで、近年では透析関連合併位予防を見据えてHDF治療の施行やなど態度の使用が検討されている。

東南アジス諸国における透析し省数と透析施設数は年々増加してる。

は今後も増加し続けると思われる。

透析治療の普及に伴い、近年では透析関連合併症予防のためにHDF治療の施行や高性能膜の使用が検討されている。

東南アジア諸国における透析患者数と透析施設数は年々増加している。

この数は今後も増加し続けると思われる。

透析治療の普及に伴い、近年では透析関連合併症予防のためにHDF治療の施行や高性能膜の使用が検討されている。

The number of patients requiring dialysis and dialysis facilities in developing Southeast Asian countries has increased annually

This number will continue to increase in the future.

With the popularization of dialysis treatment, implementation of hemodiafiltration therapy and use of high performance membrane are currently under consideration for preventing dialysis-related complications.

## Google翻訳の修正後、英→日でも再確認

The number of patients requiring dialysis and dialysis facilities in developing Southeast Asian countries has increased annually This number will continue to increase in the future.

With the popularization of dialysis treatment, implementation of hemodiafiltration therapy and use of high performance membrane are currently under consideration for preventing dialysis-related complications.

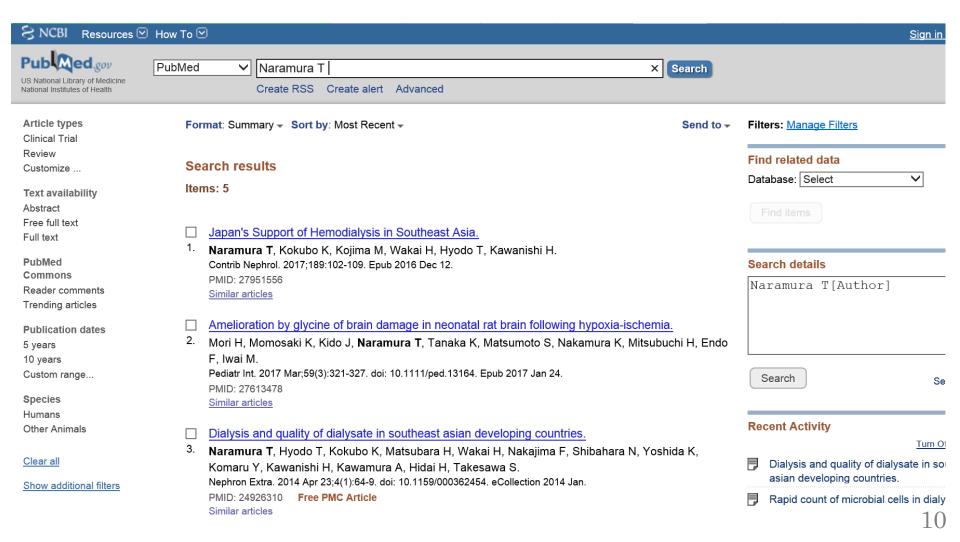


The number of patients requiring dialysis and dialysis facilities in developing Southeast Asian countries has increased annually, and this number will continue to increase in the future.

With the popularization of dialysis treatment, implementation of hemodiafiltration therapy and use of high performance membrane are currently under consideration for preventing dialysis-related complications.

## 英借文で英語をチェックする ーその1ー

## Pub Medを活用



## Pub Medの有効活用

Format: Abstract - Send to -

Nephron Extra. 2014 Apr 23;4(1):64-9. doi: 10.1159/000362454. eCollection 2014 Jan.

#### Dialysis and quality of dialysate in southeast asian developing countries.

Naramura T<sup>1</sup>, Hyodo T<sup>2</sup>, Kokubo K<sup>3</sup>, Matsubara H<sup>4</sup>, Wakai H<sup>5</sup>, Nakajima F<sup>4</sup>, Shibahara N<sup>4</sup>, Yoshida K<sup>2</sup>, Komaru Y<sup>4</sup>, Kawanishi H<sup>4</sup>, Kawamura A<sup>4</sup>, Hidai H<sup>4</sup>, Takesawa S<sup>6</sup>.

Author information

#### Abstract

**BACKGROUND:** The number of dialysis patients has been increasing in Southeast Asia, but statistical data about these patients and on the quality of dialysates in Southeast Asian dialysis facilities are still imprecise. For this study, dialysis-related statistical data were collected in Southeast Asia.

**METHODS:** A survey of the quality of dialysates was carried out at 4 dialysis facilities in Vietnam and Cambodia. The dialysis patient survey included the numbers of dialysis facilities and patients receiving dialysis, a ranking of underlying diseases causing the initiation of dialysis, the number of patients receiving hemodialysis (HD)/on-line hemodiafiltration/continuous ambulatory peritoneal dialysis, the number of HD monitoring devices installed, the cost of each session of dialysis (in USD), the percentage of out-of-pocket payments, and the 1-year survival rates of the dialysis patients (in percent). The dialysate survey covered the endotoxin (ET) level and bacterial count in tap water, in water filtered through a reverse osmosis system and in dialysate.

**RESULTS:** In each of the countries, the most frequent reason for the initiation of dialysis is diabetes mellitus. HD is usually carried out according to the 'reuse' principle. The 1-year survival rates are 70% in Myanmar and about 90% in the Philippines and Malaysia. The ET levels in standard dialysates were satisfactory at 2 facilities. The bacterial counts in dialysates were not acceptable at any of the facilities investigated.

**CONCLUSION:** There is an urgent need to teach medical workers involved in dialysis how to prepare sterile and ET-free dialysates.

## 英借文で英語をチェックする ーその2ー

我々は尿素を除去した。

O We eliminated urea.

O We removed urea.

## 教えて! Google先生!!



約 398,000 件 (0.37 秒)

#### Hemodialysis Dose & Adequacy | NIDDK

https://www.niddk.nih.gov › ... › Kidney Failure › Hemodialysis ▼ このページを訳す

When kidneys fail, **dialysis** is necessary to remove waste products such as **urea** from the blood. By itself, **urea** is only mildly toxic, but a high **urea** level means that the levels of many other waste products that are more harmful and not as easily ...

#### Urea and creatinine - London Health Sciences Centre

www.lhsc.on.ca/Patients\_Families\_Visitors/CCTC/.../dialysis.htm ▼ このページを訳す

If enough nephrons are damaged, water and waste products cannot be eliminated fast enough and they will ... In critical care, dialysis is provided as either Intermittent Hemodialysis (IHD) or as Continuous Renal Replacement Therapy (CRRT).

#### Urea reduction ratio - Wikipedia

https://en.wikipedia.org/wiki/Urea\_reduction\_ratio ▼ このページを訳す

For the Scottish river see: Urr Water. The **urea** reduction ratio (URR), is a dimensionless number used to quantify **dialvsis** treatment adequacy. Contents. Ihidel. 1 Definition: 2 History and Overview.

## ダブルクォーテーションの活用



約56件(0.40秒)

#### CLINICAL EXTRACORPOREAL DIALYSIS OF BLOOD WITH ...

www.sciencedirect.com/science/article/pii/S014067364890004X - このページを訳す 2003/09/26 - The Lancet ORIGINAL ARTICLES CLINICAL EXTRACORPOREAL **DIALYSIS** OF BLOOD WITH ARTIFICIAL KIDNEY .... as the absolute quantity of **eliminated urea**, increased with the speed of flow within the limits investigated.

#### improved as - ScienceDirect

www.sciencedirect.com/science/article/pii/.../pdf?md5...1... - このページを訳す

N Alwall 著 - 1948 - 引用元 24 - 関連記事

apparatus for the dialysis of a patient's blood outside the body. ... aspect; (c) cylinders assembled with top and bottom. about 25 litres of salt solution. Dialysis area about 6500 sq. cm. .... as the absolute quantity of eliminated urea, increased.

#### [PDF] 2009 Japanese Society for Dialysis Therapy Guidelines for Peritonea...

www.jsdt.or.jp/.../2009%20Japanese%20Society%20for%20Dialysis... ▼ このページを訳す Working Group Committee for the Preparation of Guidelines for Peritoneal **Dialysis**,. Japanese

## ダブルクォーテーションの活用



約 2,750 件 (0.52 秒)

#### TRU - Total Removed Urea (dialysis) | AcronymFinder

www.acronymfinder.com/Total-Removed-Urea-(dialysis)-(TRU).html - このページを訳す How is Total **Removed Urea** (dialysis) abbreviated? TRU stands for Total **Removed Urea** (dialysis). TRU is defined as Total **Removed Urea** (dialysis) rarely.

Easy method to remove urea after denaturing purification, no dialysis? https://www.researchgate.net/.../Easy\_method\_to\_remove\_urea\_afte... ▼ このページを訳す 2012/12/07 - Alternative to dialysis is ultrafiltration where your urea buffer can be replaced by your buffer of choice. .... My protein of interest finally dissolved in 8 M urea. i removed urea by yours protcol however whenever i dissolved in ...

#### Comprehensive Clinical Nephrology E-Book

https://books.google.co.jp/books?isbn=0323242871 - このページを訳す

Richard J. Johnson, John Feehally, Jurgen Floege - 2014 - Medical

... 0 0.5 0% 39% Kt/Vurea per dialysis Figure 94-2 Total body urea fraction removed in relation to Kt/V. In this example, 63% of total body urea fraction is removed with Kt/V of 1.0; doubling of Kt/V to

## ネイティブチェック

Dialysis facilities and patients number in the Southeast Asian developing countries (Myanmar, Cambodia) increase year by year, and it is expected that this tendency will continue in future. With the spread of dialysis treatment, implementation of HDF therapy and/or use of HPM (high performance membrane) is currently under consideration for the suppression of the dialysis-related complication.

Dialysis and dialysis facilities and The patients number of patients requiring dialysis and dialysis facilities in developing the Southeast Asian developing countries (e.g., Myanmar, and Cambodia) has increased annually, and this number year by year, and it is expected that this tendency will continue to increase in the future. With the popularizationadvancements spread of of dialysis [AS] treatment, implementation of hemodiafiltration HDF therapy and/or use of HPM (high performance membran [A4]e) are is currently under consideration for preventing the suppression of the dialysis related complications [A5].

## ネイティブ以外の方は必ずネイティブチェックを!!

① 単数と複数の捉え方が理解し難い

dialysis fluid or dialysis fluids?

②「a」や「the」などの冠詞が理解し難い

The bioplorer NCM is based on the double staining of cells with 4', 6-diamidino-2-phenylindole (DAPI) and propidium iodide (PI) and the automatic analysis of their fluorescent microscopic images.

③ 主語を何にするかで受け取り側の感触が違う

【校正前】Dialysis facilities and patients number in the Southeast Asian developing countries increase year by year, and it is expected that this tendency will continue in future.

【校正後】The number of patients requiring dialysis and dialysis facilities in developing Southeast Asian countries has increased annually, and this number will continue to increase in the future.

## スライド作成

# Introduction Principle of the real-time monitoring system Objects and methods Results **Discussions** Conclusion

さぁ、次はいよいよ発表です!!

## 発表時の心構えと注意点

- ◎ 発表前の準備を怠らない
- ◎ 正しい英文法で話すことにこだわらない
- ◎ 中途半端な文章より、単語とジェスチャーの方が通じやすい
- ◎ ただし、発音は正しくないと伝わらない (特に、和製英語に注意!!)

ex.) alcohol, vitamin, potassium, etc...

- ◎ 聴講者は正確な英語での発表を求めているわけではない
- ◎ 早口で流暢な講演は分かりにくい
- ◎ 読み原稿の棒読みは極力避ける

## 英語で発表するためのスライドへの工夫

### Prevention of dialysis-related complications

Carpal tunnel syndrome (CTS), Erythropoietin (EPO)-Resistant Anemia,

÷

- Need to remove medium- and large-sized molecular uremic toxins. The implementation of HDF therapy and high-performance membranes is being considered as a method of preventing dialysis-related complications.
- Contamination of dialysis fluid is the cause of the MIA syndrome.

It is indispensable to purify the dialysis fluid.

## 英語が苦手な人のためのスライドへの工夫

## -NGO Ubiquitous Blood Purification International — Purification Support of Dialysis Fluid







Simple and easy contamination control

- ⇒ Installed ETRF in all dialysis machines.
- Installed flashing solenoid valves to prevent clogging of the ETRF.
- Replaced the silicon tube from ETRF to coupler.
- Provided technical guidance for local staff.



## 英語が苦手な人のためのスライドへの工夫

#### -NGO Ubiquitous Blood Purification International— Purification Support of Dialysis Fluid







Simple and easy contamination control

- ⇒ Installed ETRF in all dialysis machines.
- Installed flashing solenoid valves to prevent clogging of the ETRF.
- Replaced the silicon tube from ETRF to coupler.
- Provided technical guidance for local staff.



<u>So,</u> for simple and easy contamination control, <u>we</u> installed ETRF in all dialysis machines.

At the same time, we installed flashing solenoid valves to prevent clogging of the ETRF.

<u>Furthermore, we</u> replaced the silicon tube from ETRF to coupler. We also provided technical guidance for local staff.



## 英語での質疑応答を切り抜ける!!

## 沈黙の時間を極力なくす

```
1. 「・・・・しようと思ってます」
   ⇒ I'm planning to ····」
2.「・・・・と考えます」
   ⇒ I consider ····」
3.「・・・・と思います」
  ⇒ I think ···· ।
4.「・・・・と推測します」
  ⇒ I guess ····」
5. 「・・・・を期待しています」
```

⇒ I expect ····」

## 予想される質問をあらかじめ想定しておく

Q: Is there any possibility that fluorescent not bacteria but some substances?

A: Maybe, we think. We have been examining. You're able to separate the difference of the emission intensity or the substance size.

₽

Q: Is it possible that this system detect only bacteria?

A: Substances that emit light in addition to the bacteria is present. It is possible to separate because of the difference in emission intensity and the size of the bacteria.

Ψ

Q: Does this system have to detect only live bacteria?

A: Yes. But we are considering that how long active of riboflavin would be after death.

Ψ

Q: Do all bacteria have riboflavin activity?

A: It's unknown about the bacteria that live in the environment.

Ų

Q: If you cannot measure only a portion of the dialysate, its value does represent the typical?

A: It's unknown whether to show the measures of central tendency. But we believe it is a more superior method for detecting bacteria than sampling inspection.

ų

Q: Where do you attach to the part of the manufacturing process?

A: It's a big now. But we are planning to downsize. For the last time, We would like to shape it to attach each dialysis machine. Now, we assume that this system attaches to the central supply delivery system.

## 最低限の英語を暗記して発表に望む

#### 相手の質問がわからない場合

- Slow down please. ゆっくり話してください。
- I'm not following you, please repeat again. 質問がわかりませんでした。もう一度お願いします。
- I couldn't hear your question. 質問が聞こえませんでした。

### お茶を濁す

- I agree with you! 私もそう思います!
- It is a future work. Thank you for your suggestion.

  それは今後検討したいと思います。ご提案有難う御座いました。
- If possible, I'd like to have a discussion with you after this session. もし可能でしたら、このセッションの後にディスカッションさせて下さい。

## Thank you for your kind attention.

## Japan Association for Clinical Engineers COI Disclosure

Name of Author: Tomotaka Naramura

The authors have no financial conflicts of interest to disclose concerning the presentation.