How to write the Results Section

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RESULTS

- The results section answers the question "What was found?"

- Reports results of the investigation described in the methods section

- Not contained interpretation of data or statement that require refferencing

- **Function**: to objectively present your key results, *without* interpretation, in an orderly and logical sequence using both text and illustrative materials (Tables and Figures).

Two pieces of general advice:

- Keep the results section as brief and uncluttered as possible

- Organised the presentation of results

What is the results composed of

- Words (to tell the story)
- Tables that summaries the evidence
- Illustration (that highlight the main findings)
- Statistics (that support the statement)

The words

- Characterising the participants and objects of your study in enough detail for the reader to asses how representative they were, if more than 2 groups how comparable they were

	Atopic dermatitis (n = 73)	Control with respiratory atopy (n = 13)	Control without respiratory atopy (n = 25)	P value
Mean ± SD age (years)	22.48 ± 6.17	22.0 ± 4.22	23.64 ± 4.88	0.614
Sex				
Male	74.0%	69.2%	88.0%	0.289
Female	26.0%	30.8%	12.0%	
Ethnic group				
Chinese	89.1%	100%	92.0%	0.898
Malay	5.5%	0%	4.0%	
Indian	5.5%	0%	4.0%	
Past history				
Asthma	41.1%	23.1%	0%	< 0.001*
Allergic rhinitis	50.7%	76.9%	0%	< 0.001*
Family history				
Atopic dermatitis	15.1%	23.1%	0%	0.071
Asthma	21.9%	30.8%	24.0%	0.783
Allergic rhinitis	23.3%	23.1%	4.0%	0.096
IgE levels ±				

Results

*Statistical

Demographic data and history

Demographic data and history of atopy were compared between the AD and control groups (Table 1). There was no significant difference between the two groups in terms of age, gender or ethnic group. Subjects with AD are more likely than controls to have a past history of asthma or allergic rhinitis (71.2% vs. 34.2%). There was no significant difference in family history of atopic

Results

Characteristics of the studied workers

All 472 workers (112 females and 360 males) employed in the production process at the two tanneries were included
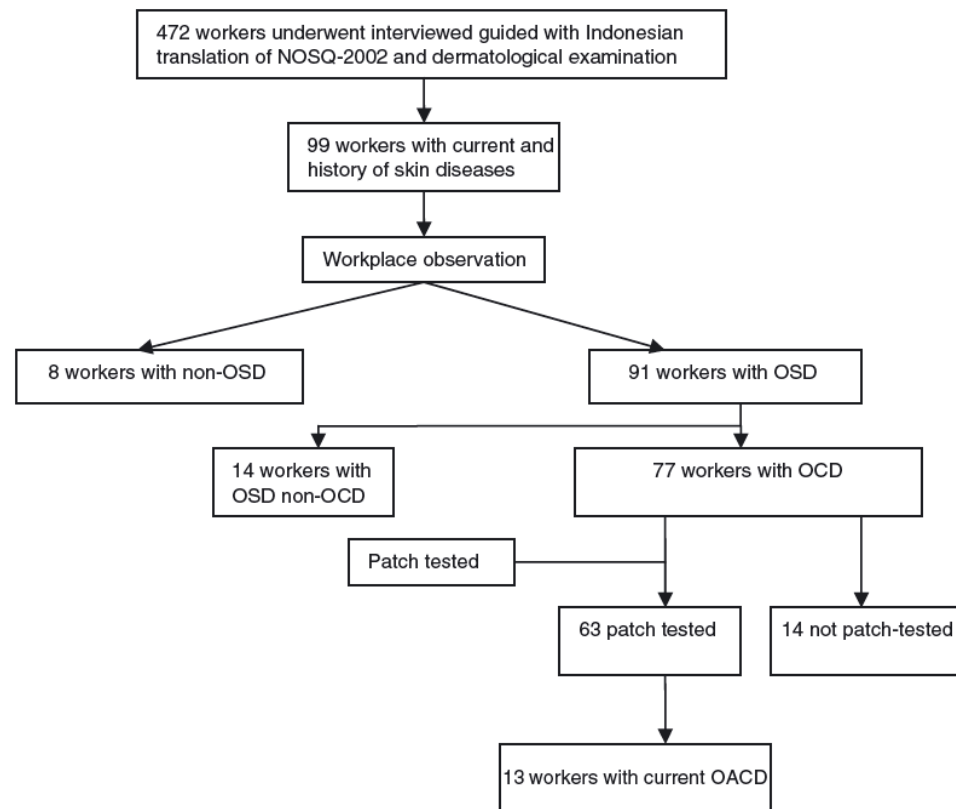
Fig. 1. Flowchart of the 472 workers. OACD, occupational allergic contact dermatitis; OCD, occupational contact dermatitis; OSD, occupational skin disease.

- Continue section by presenting the answered to your main questions.

- Report results that not supported your main questions.

- Address one topic per paragraph

The present study showed that 90.4% of the patients had oral mucosal lesions, which is in accordance with a previous report [36]. Moreover, a multicentre study by Brenner et al. [37], found varying prevalence of oral lesions in patients with PV; 66% in Bulgarian patients, 83% in Italian, and 92% in Israeli patients. Our result is higher than those reported by Ramirez et al. [38], who found a prevalence of 18% of oral lesions in PV patients examined in a dermatologic clinic in Mexico City.

the study design. The cross –sectional hospital based design of this study and the small sample size of the study populations hindered statistical evaluation of the findings. In addition, the relatively short period for data collection and the potential effect of selection bias were considered to influence the results and limit generalization. While the KTH is one of the largest national referral hospitals in Sudan, other referral and private hospitals could also receive patients from other parts of Khartoum and the rest of the country. In spite of the limitations mentioned above, the study may be beneficial as a first step in studying a new issue and to generate hypotheses.

Pemphigus is primarily considered to be a dermatologic disease. The fact that PV commonly and initially affects the oral mucosa and then the skin [16], gives dentists a great opportunity to detect the disease at an early stage.

The present study showed that 90.4% of the patients had oral mucosal lesions, which is in accordance with a previous report [36]. Moreover, a multicentre study by Brenner et al. [37], found varying prevalence of oral lesions in patients with PV; 66% in Bulgarian patients, 83% in Italian, and 92% in Israeli patients. Our result is higher than those reported by Ramirez et al. [38], who found a prevalence of 18% of oral lesions in PV patients examined in a dermatologic clinic in Mexico City.

Generally, PV has been reported to affect men and women equally [9]. Several studies registered the highest frequency in females [21,39-46], while a few studies have reported males' dominance [41,47]. In general, estrogen (exogenous and endogenous) has been accused for the females' predominance in autoimmune diseases [48]. Supporting the hypothesis, 80% of the females in the

Differentiate clearly between results and data.

- Data are factual findings derived from observation and measurements.

  Data can be raw (blood pressure), summarised (mean and standard deviation) or transformed (percentage of baseline condition).

- Result state the meaning of the data (e.g. Furosemide administered during mechanical ventilation increase urine output)

Examples

- In 14 untreated individuals, the mean blood glucose concentration was 205 ± 10 (SD) mg%. In 16 patients treated with drug X the mean blood glucose concentration was 105 ± 10mg%.

The implication of the data is not immediatey obvious.

- The men blood glucose concentration was 50% lower in the 16 patients treated with drug X than in the 14 untreated inividuals (105± 10 SD) versus 205 ± 10 mg%, p<0.001)

This sentences states both the data and the results.

The reader now receives immediately ate information on the direction ('was lower'). The magnitude (50%) and the likelihood to chance finding (p<0.001) of the observed difference.

- Emphasise important results by omitting data from the text, considering the results, using a results as a topic sentence, putting the most important results of the beginning of a paragraph, and subordinating less important information.

- Do not use table heading or figure legends as a topic sentences

- Be precise in your choice of words.

"Substance X did not decrease systemic vascular resistance" is

clearly different from that

"Substance X failed to decrease systemic vascular resistance." Failed implies that you actually had expected a decrease in systemic vascular resistance. Did not implies no such a priori expectation.

Tables and illustrations : general consideration

- Many readers tend to skip the text or read only part of it.

- Reader prefer looking at tables and illustration

- Have strong visual impact, informative and easy to comprehend.

- Table and illustration should follow a sequnce that clearly relates to the text and tell the story of paper.

- Strictly follow the rule from **"Instruction for the author"**
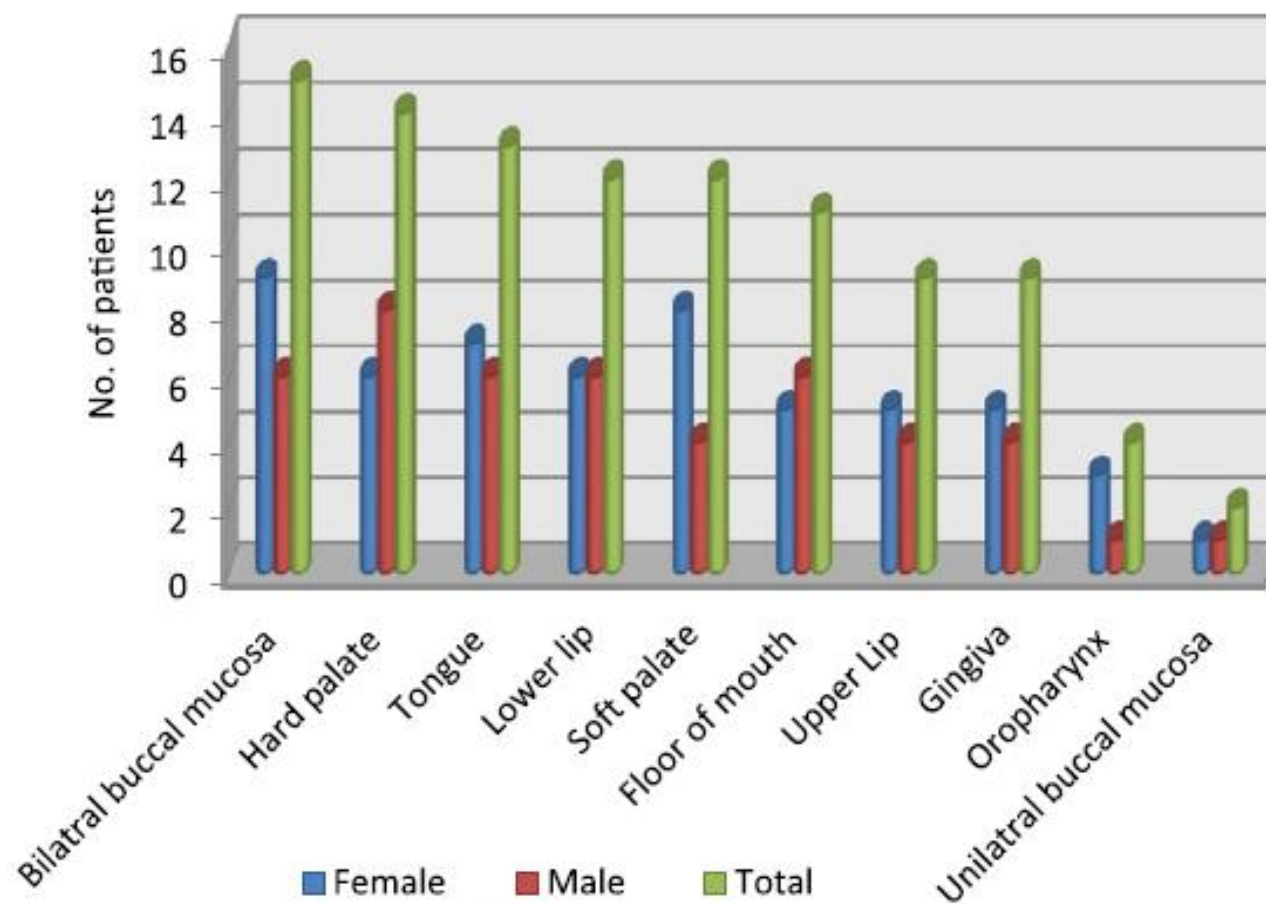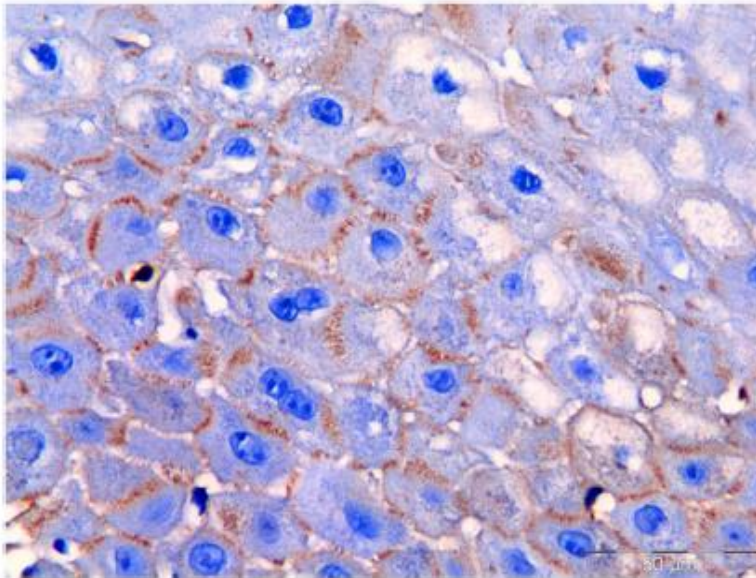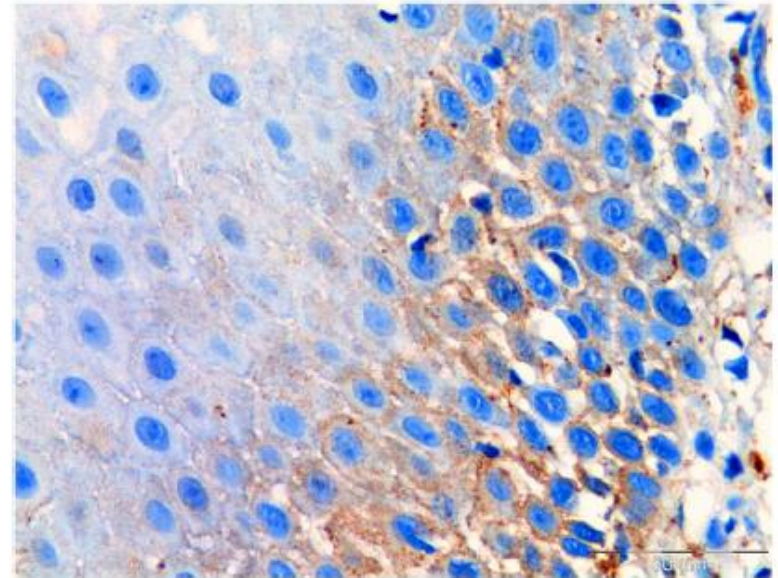
Figure 1 Distribution of oral manifestations in patients with pemphigus vulgaris.

Figure 3 Immunohistochemistry staining used to detect IgG in formalin-fixed, paraffin-embedded oral tissue biopsy from **patients with pemphigus vulgaris.** IgG (brown colour) is seen in the intercellular junction of keratinocytes reliable with the location of desmoglein 3 (scale = 50 µm).

Figure 4 Immunohistochemistry staining used to detect C3 in formalin-fixed, paraffin-embedded oral tissue biopsy from **patients with pemphigus vulgaris.** C3 (brown colour) is seen in the intercellular junction of keratinocytes reliable with the location of desmoglein 3 (scale = 50 µm).

Inventory of the chemicals and the exposure of the workers' skin to these at two leather factories in Indonesia

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any *skin problem* related to occupation?'

Besides the questionnaire, the skin of all included workers was examined by two dermatologists and a dermatologist with additional training in contact and occupational dermatitis to determine the prevalence of occupational skin diseases. This assessment was put
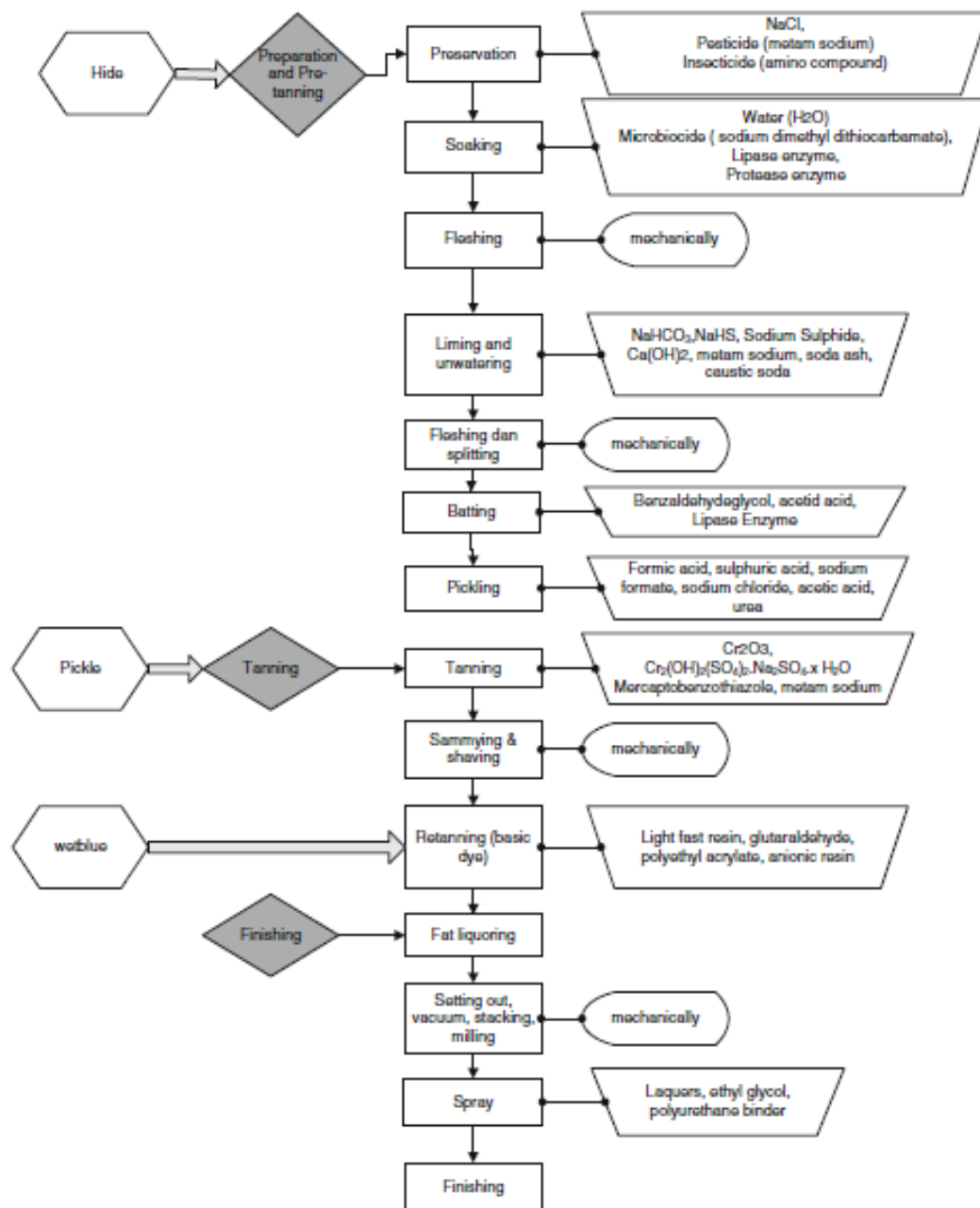
3. Post-tanning or finishing stage (drying, fat liquoring and finishing).

The working process and the relevant chemicals that the workers were exposed are shown in Fig. 2. List of chemicals and the effect of each chemical on the skin are presented in Table 1.

The leather processing itself involves three steps:

1. Preparation of hides (curing, soaking and hair removal liming) and pre-tanning stage (bating and pickling) in a special shed (called beam house).
2. Tanning stage (tanning, sammying and shaving).

Preparation of the hides and pre-tanning at the beam house

The aim of the beam house process is to put the hides into a proper chemical and physical condition for the subsequent removal of unwanted substances in the finished leather. In a curing process, the hides are treated with sodium chloride
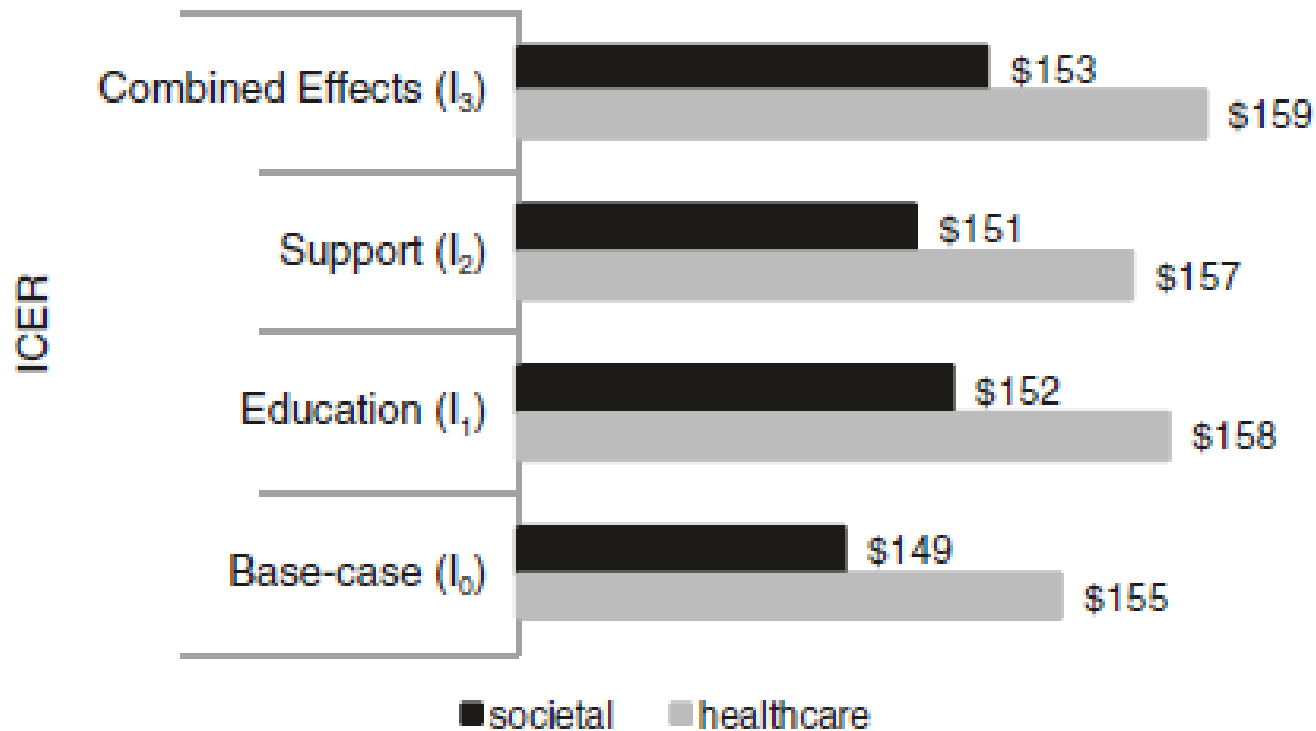
Fig. 2 Flowchart of working process

The tables

- Tables present data that support results
- Structure :
  - Title
  - Column heading
  - Body
  - Footnotes

Figure 2 Cost-effectiveness value for all interventions.

Table 3 Drugs highly associated with AGEP

Drug or coalition	AGEP (n = 97) n (%)	Controls (n = 1009) n (%)	OR[a]	95% CI		% of use of suspec
Pristinamycin	10 (10)	0	∞	26	∞	10
Aminopenicillins	18 (19)	17 (2)	23	10	54	17
Quinolones	9 (9)	5 (0·5)	33	8·5	127	33
(Hydroxy)chloroquine	7 (7)	2 (0·2)	39	8·0	191	0
Sulphonamides	4 (4)	0	∞	7·1	∞	0
Terbinafine	4 (4)	0	∞	7·1	∞	25
Diltiazem	7 (7)	10 (1)	15	5·0	48	0

[a]Multivariate OR if at least three cases and three controls exposed, otherwise univariate; [b]recent use of other 'highly suspe any other drug listed in the table).
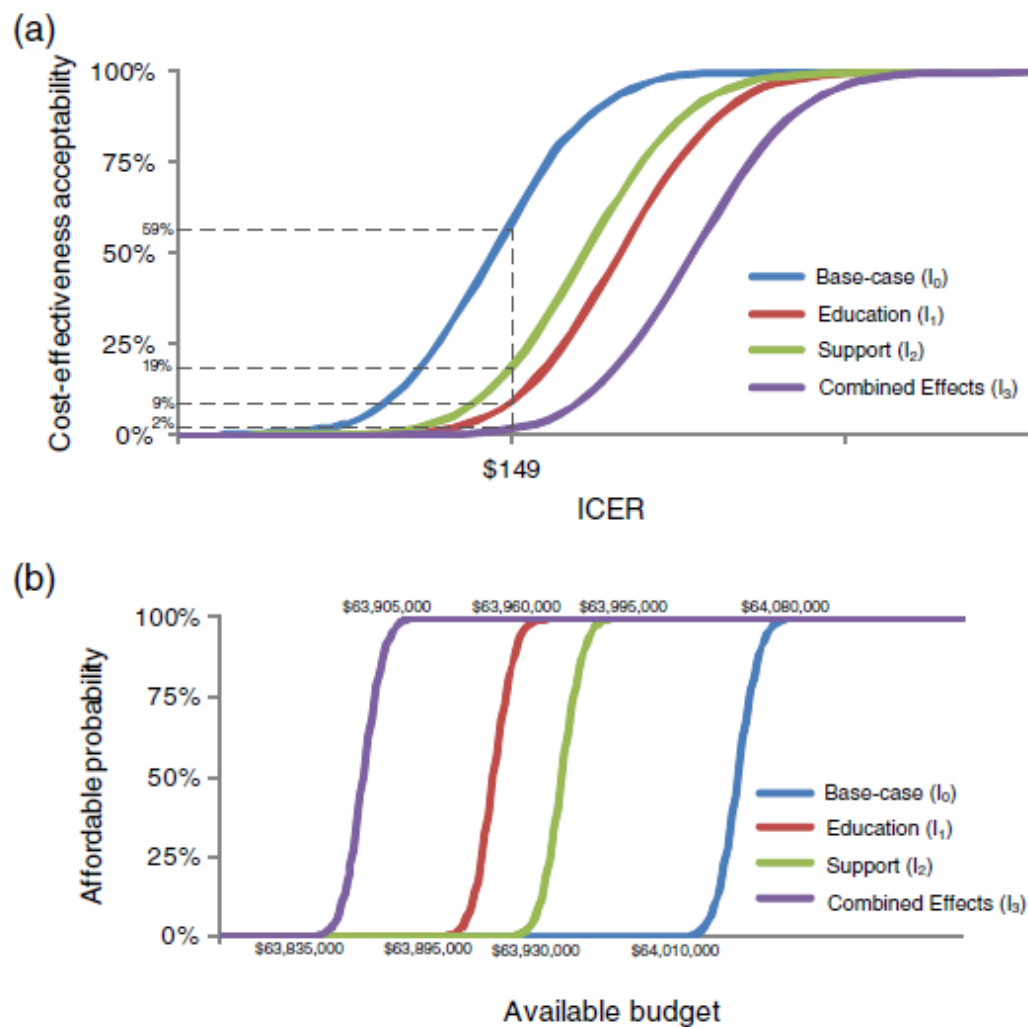
AGEP, acute generalized exanthematous pustulosis; OR, odds ratio; CI, confidence interval.

The illustration

- Main purpose : present evidence that support the results – either as primary evidence (e.g.ECG or radiographs) or numerical data (graph or histograms)

Figure 4 Cost-effectiveness acceptability and affordability curves. (a) Cost-effectiveness acceptability curves from the societal perspective. **(b)** Affordability curves from the healthcare perspective.

The statistics

- Statistics must accompany data
- Many paper suffer because the statistics are badly presented.

$$\text{logit } P(Y = 1 \mid D = 1, X_1, X_2, X_3) = \beta^1_0 + \beta^1_1 X_1$$

$$+ \beta^1_2 X_2 + \beta^1_3 X_3$$

$$\text{logit } P(Y = 1 \mid D = 0, X_1, X_2, X_3) = \beta^0_0 + \beta^0_1 X_1$$

$$+ \beta^0_2 X_2 + \beta^0_3 X_3$$

with $D = 1$ denoting that disease is present and $Y = 1$ denoting a positive test result.

Conclusion

- The results section is the easiest to write
- Decide during the design stage of your study how the results will be presented.
- Remember to follow the general design of the results section: the text should tell the story the tables will summarise the evidence the illustration will show the highlights and statistical should support your statements.
- Keep it straightforward – and always keep the reader in mind

in the study. Their mean age was 36 years, and they had a mean duration of employment of 6 years and mean working hours per week of 47 hr. Twenty-one workers (4%) had a history of childhood eczema, 96 workers (20%) had a history of atopic respiratory disease, and 101 workers (22%) had atopic skin diathesis.

Development of specific tannery patch test series

On the basis of the previously reported workplace observations and the list of allergens that were identified at these tanneries (18), a literature search was performed to define a preferred vehicle and preferred concentrations of patch test allergens that were not commercially available (Table 1) (19).

Dermatological examination and patch test results

Occupational contact dermatitis was suspected in 77 (16%) of the 472 workers. Patch tests were performed in 63 of these workers; 13 (3%) had a positive patch test reaction to one or more of the tannery allergens and were diagnosed having occupational allergic contact dermatitis (Fig. 1).

Table 2. Location of the skin complaints in workers with current and past occupational contact dermatitis

Location of the skin lesion	Number of workers[a]
Hand wrist/forearm	68
Face/neck	5
Lower extremities	24
Trunk	52

[a]More than one area can be involved in a worker.

Locations of skin lesions in workers with occupational contact dermatitis

The locations of the skin lesions in the 77 workers with occupational contact dermatitis are shown in Table 2. The hands and the wrist/forearms were the areas generally affected by the occupation-related skin disease. In this population, we found that more than half of workers had involvement of the face/neck, the lower extremities, and the trunk.

Sensitization

A list of the relevant allergens to which sensitizations were seen is shown in Table 3. We found sensitization to 15

Terima kasih