

PROPOSAL FOR CHANGING THE RULES OF WATER POLO

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Abstract

Based on the comprehensive scientific analysis of water polo game, after the Extraordinary Congress of International Water Sports Organization (FINA) in Hangzhou, China, in 2018, accepted some of the proposed changes to the rules of water polo game, skeptical for these changes, considering them as a insufficient "cosmetic contribution" which will not contribute to the attractiveness of this game, we are free to suggest, with arguments, changes of the rules of a water polo game convinced that the changes which are suggested are only and the right way to improve water polo game, to become truly attractive to the audience, ceases to be a rough play full of physical contacts in which the raw power is in absolute advantage over the idea and intelligent tactical behavior of the player and what today's water polo is. The proposed changes, if accepted, will substantially change the work of the coaches as well as the very appearance of the game. The players will be brought to the stand by their conceptuality, intelligent technical-tactical solutions and behavior. The proposed changes to the Rules of the game are, with previous arguable explanations, articulated with changes in FINA Water Polo Rules 2019 - 2021 Amendments, Additions, Interpretations and Explanations Valid as of February, 2019.

Key words: water polo rules, changes, amendments, interpretations.

Introduction

At the end of April 2018, a large FINA conference was held in Budapest, where more than 200 delegates from 107 countries discussed the future of water polo. For the new rules in the proposal, a working group was created. Out of 19 proposals for change of rules, 15 of them came from the Coaching Association, which tells the interest and strength of this association. It was planned that the rules of the Technical Water Polo Committee would be tested in October, and that in November, at the FINA Congress, it would be decided to adopt the changes in the rules.

In the Chinese city of Hangzhou An Extraordinary Congress of the International Water Sports Organization (FINA) was held, whereby the changes to the rules of the water polo were accepted. The proposed changes to the rules of the water polo game were almost unanimously supported after the 161 votes cast, 6 against and 2 abstained. Changes in the rules of the water polo were done for at least a year, a series of conferences and seminars around the world took place, and some games and tournaments were played with the proposed and now adopted rules (.Donev, Y. & Aleksandrović, M. (2008)., FINA Water Polo Rules 2018 – 2020 Amendments, Additions, Interpretations and Explanations Effective, Hraste M., Bebić M., Rudić R.(2013), Lozovina M. and Lozovina V. (2009), Pavičić L., Lozovina M., Lozovina V. (2014).

Here's what new rules change in a water polo game:

After the corner and exclusion of the defending team, the time of the new attack (the so-called second attack) is reduced to 20 seconds rather than as far as 30 seconds.

Within 6 meters of the goal, any offense from the back on the attacker who has a ball and moves towards the opposing goal, and tries to shoot, shall be punished by a penalty throw. A free throw shall be taken at the location of the ball unless the offense is made within 2 meters of the goal. It is possible to score the goal with a direct free throw shot beyond 6 meters. A player who performs a corner throw can score with direct shot or by swimming from corner and shoot, and before he had to perform one pass to score. so-called "flying substitutions" of players to the middle of the pool are possible now, and so far it was only possible from exclusion re-entry area on goal line. Each team has the right to use 2 time-outs during the match, and the team or bench will be equipped with a button indicating device to indicate wish for time-out. The goalkeeper can go to the attack or may swim in the other part of the pool. The break between the 2nd and 3rd quarter is shortened from 5 minutes to 3 minutes. The referees will be equipped with audio technology (headphones and microphone) for mutual ease of communication. The VMS (Video Monitoring System) system is introduced to determine whether the ball has crossed the goal line and whether a gross offense has been committed which is sanctioned by exclusion. All of these have resulted in amendments and additions to the official Water Polo Rules which we quote:

From 5th to 7th April 2019, the second edition of the Europa Cup in the water polo was played in Zagreb, where Hungary, Croatia, Italy, Spain, Montenegro, Greece, Serbia and Russia teams participated. In this tournament, for the first time in official international matches, new rules of the game were applied, obviously in the game of the

best water polo teams in the world. This tournament gave us an opportunity to inspect the effectiveness of the changes introduced in the rules as well as the reflection of the same on the game itself. Respecting the good intention of changing the Rules of Water Polo as a game to improve, adding to its attractiveness, after watching and analyzing all the games, we think that the changes mentioned are in essence only a "cosmetic action" that essentially does not change or improve the game, and that was the intent of changing the Rules of the Game.

Today's water polo is a tough game full of physical contacts where crude power is in absolute advantage over the idea and intelligent tactical behavior of players. Water polo is a game dominated by an energy component, and the information component (techniques, tactics and strategies) is reduced to the maximum and becomes lost and disappears. Game rules, on the one hand, and their application by referees, on the other hand, completely destroyed the horizontal component of the game (all swimming in water polo) and the techniques were reduced to about 30 using elementary techniques, consequently impoverished tactics and ultimately absence of either what kind of attractiveness resulted in the lack of audience at the matches.

After years of continuous monitoring of this sport game, we decided to analyze the effects of changing the Rules of Water Polo Game, and we are free to propose certain additional changes that we consider to be essential to influence, enhance and make it more beautiful and more interesting to the public. Our criticisms and comments on the existing changes as well as the new proposals for change are going to limit the referees in their assessments and interpretation of the rules, uniform them and even in the judging.

On the other hand, the changes we propose will certainly, if accepted, change the work of trainers in training, change the look of the game and bring the players to the point of emphasizing their conceptuality, intelligent technical-tactical behavior, not the raw strength and ugliness they have which today's water polo defines and make them good players (Hraste, M. (2010), Lozovina M. and Lozovina V. (2009), Pavičić L., Lozovina M., Lozovina V. (2014), Pavičić, L., Lozovina, V., Šimenc, Z. (1987).

Changes made in Rules of Croatian Water polo federation

WP 1.6 Distinctive marks shall be provided on both sides of the field of play to denote the following:
d) a red marker shall be placed 5 meters from goal lines to indicate the point from which a penalty shot must be taken.

WP 1.8An area for flying substitutions must be available on the lateral outer side of the field of play, on the side where the team benches are situated.

The width of this area must be between 0.5m – 1m. The designated area for flying substitutions for each team will be between the goal line in front of the team bench and the center of the field of play.

WP 4.3.1 For Olympic Games only: Caps shall be numbered on both sides with numbers 0.10 meters in height. The goalkeeper shall wear cap no. 1 and the other caps shall be numbered 2 to 11. A player shall not be allowed to change cap number during the game except with the permission of a referee and with notification to the secretary.

WP 5.1.1 For Olympic Games only: Each team shall consist of a maximum of eleven players: ten field players and one goalkeeper. A team shall start the game with not more than seven players, one of whom shall be the goalkeeper and who shall wear the goalkeeper's cap. Four reserves may be used as substitutes. One of the reserves may also be used as a substitute goalkeeper but must wear a red cap. A team playing with less than seven players shall not be required to have a goalkeeper.

WP 5.6 At any time in the game, a player may be substituted by leaving the field of play at the team's designated substitution areas. The substitute may enter the field of play from the exclusion re-entry area as soon as the player has visibly risen to the surface of the water within the re-entry area. Substitution from the designated lateral substitution area is allowed when both players, the exiting player and the substitute, are in the water, outside of the field of play and touch hands above the water. If a goalkeeper is substituted under this Rule, it must only be by the substitute goalkeeper. If the team has less than seven players, the team shall not be required to have a goalkeeper. No substitution shall be made under this Rule between the time a referee awards a penalty throw and the taking of the throw.

NOTE: In the event that the goalkeeper and substitute goalkeeper are not entitled or able to participate, a team playing with seven players shall be required to play with an alternative goalkeeper who shall wear the goalkeeper's cap. During a game should a team have no more substitutes apart from the substitute goalkeeper either the goalkeeper or substitute goalkeeper may play as a field player.

WP 6 OFFICIALS

c) Video assistant referee: shall assist the two referees in doubtful "goal/no goal" situations.

WP 10. SECRETARIES

WP 10.1 The duties of the secretaries shall be:
b) to control the periods of exclusion of players and to signal the expiration of the period of exclusion by raising the appropriate flag or by another approved method of signaling; except that a referee shall signal the re-entry of an excluded player or a substitute when that player's team has retaken possession of the ball. After 4 minutes, the secretary should signal the re-entry of a substitute

for a player who has committed brutality by raising the yellow flag along with the appropriate coloured flag or by another approved method of signaling;

c) to signal with the red flag and by whistle, or by another approved method of signaling, for any improper re-entry of an excluded player or improper entry of a substitute (including after a signal by a goal judge to indicate an improper re-entry or entry), which signal shall stop play immediately.

WP 11 VIDEO ASSISTANT REFEREE

WP 11.1 The duties of the Video Assistant referee shall be:

- (a) to alert the match referee(s) in doubtful "goal / no goal" situations
- (b) to show the match referee(s) a re-play of the doubtful "goal / no goal" situation

WP 12 DURATION OF THE GAME

WP 12.2 There shall be a two-minute interval between the first and second periods and between the third and fourth periods and a three-minute interval between the second and third periods. The teams, including the players, coaches and officials, shall change ends before starting the third period.

NOTE:

If a penalty shootout is necessary, the following procedure shall be followed:

- c) if two teams are involved the respective coaches of the teams will be requested to nominate five players and goalkeeper who will participate in the penalty shootout, the goal keeper may be one of the shooters; the goalkeeper may be changed at any time provided the substitute was listed amongst the team list in that game, however he cannot be substituted as one of the shooters;
- h) the team to shoot first will be determined by toss of a coin.

WP 13. TIME OUT

WP 13.1. Each team may request two timeouts per game. The duration of the timeout shall be one minute. A timeout may be requested at any time, including after a goal, by the coach of the team in possession of the ball calling "timeout" and signaling to the secretary or referee with the hands forming a T-shape. If a timeout is requested, the secretary or referee shall immediately stop the game by whistle and the players shall immediately return to their respective halves of the field of play. The timeout request can also be made by any device authorized for use in the game.

NOTE :

Time out can not be requested after taking a penalty throw.

WP 13.2 Play shall be restarted on the whistle of the referee by the team in possession of the ball putting the ball into play on or behind the half distance line, except that if the timeout is requested before the taking of a corner throw. That throw shall be maintained.

WP 13.4 If the coach of the team not in possession of the ball requests a timeout, the game shall be stopped and a penalty throw awarded to the opposing team.

NOTE:

After such an illegal call to a time out, the team lose the right to a regular time out (if there was one more left).

WP 13.5 At the restart following a timeout, players may take any position in the field of play, subject to the Rules relating to the taking of corner throws.

WP 15 METHOD OF SCORING

WP 15.2 A goal may be scored from anywhere within the field of play.

WP 15.3 A goal may be scored by any part of the body except the clenched fist. A goal may be scored by dribbling the ball into the goal. At the start or any restart of the game, at least two players (of either team but excluding the defending goalkeeper) must intentionally play or touch the ball except at the taking of:

- a) a penalty throw;
- b) a free throw thrown by a player into the player's own goal;
- c) an immediate shot from a goal throw;
- d) an immediate shot from a free throw awarded outside 6 meters;
- e) a free throw taken and awarded outside 6 meters when the player has visibly put the ball into play;
- f) an immediate shot from a corner throw.

NOTE:

A goal may be scored by a player immediately shooting from outside 6 meters after the player's team has been awarded a free throw for a foul committed outside 6 meters. If the player puts the ball into play, a goal can be scored after faking (simulating a shot) or swimming with the ball. After a corner throw is awarded and the player puts the ball into play, a goal can be scored after faking (simulating a shot) or swimming with the ball.

A goal may not be scored under this Rule direct from the restart following:

- a) a swim up or the commencement of a period;
- b) a timeout;
- c) a goal;
- d) an injury, including bleeding;
- e) the replacement of a cap;
- f) the referee calling for the ball or calling for a neutral throw;
- g) the ball leaving the side of the field of play;
- h) any other delay.

NOTE:

After placing the ball in the game, after one of the above (a-h) situations, the player can score even after faking (simulating a shot) or swimming with the ball.

WP 15.4 A goal shall be scored if, at the expiration of 20 or 30 seconds possession, as applicable, or at the end of a period, the ball is in flight and enters the goal.

WP 17 GOAL THROWS

WP 17.1 A goal throw shall be awarded:

- a) when the entire ball has passed fully over the goal line excluding between the goal posts and underneath the crossbar, having last been touched by any player other than the goalkeeper of the defending team;
- b) when the entire ball has passed fully over the goal line between the goal posts and underneath the crossbar, or strikes the goal posts, crossbar or the defending goalkeeper direct from:

- I. a free throw awarded inside 6 meters;
- II. a free throw awarded outside 6 meters not taken in accordance with the Rules;
- III. a goal throw not taken immediately.

WP 17.2 The goal throw shall be taken by any player of the team from anywhere within the 2 meter area. A goal throw not taken in accordance with this Rule shall be retaken.

NOTE:

The goal throw shall be taken by the player nearest to the ball. There should be no undue delay in taking a free throw, goal throw or corner throw, which must be taken in such a manner so as to enable the other players to observe the ball leaving the thrower's hand. Players often make the mistake of delaying the throw because they overlook the provisions of WP 20.4, which permit the thrower to dribble the ball before passing to another player. The throw can thus be taken immediately, even though the thrower cannot at that moment find a player to whom to pass the ball. On such an occasion, the player is allowed to take the throw either by dropping it from a raised hand on to the surface of the water (figure 1) or by throwing it in the air (figure 2) and then swim with or dribble the ball. In either case, the throw must be taken so that the other players are able to observe it.

WP 21 ORDINARY FOULS

WP 21.14 For a team to retain possession of the ball for more than:

- (I.) 30 seconds of actual play, or
- (II.) 20 seconds in the case of exclusion, corner throw or rebound to the attacking team after a shot, including after a penalty shot, without shooting at the opponent's goal.

The timekeeper recording the possession time shall reset the clock:

- a) when the ball has left the hand of the player shooting at goal. If the ball rebounds into play from the goal post, crossbar or the goalkeeper, the possession time shall not recommence until the ball comes into the possession of one of the teams. The clock shall be reset to 20 seconds if the ball comes into possession of the attacking team. It shall be reset to 30 seconds if it comes into possession of the defending team;
- b) when the ball comes into the possession of the defending team, the clock shall be reset to 30 seconds.

"Possession" shall not include the ball merely being touched in flight by an opposing player;

c) when the ball is put into play following the award of an exclusion foul to the defending player, the clock shall be reset to 20 seconds unless there are more than 20 seconds of possession time remaining, in which case the time shall continue and not be reset;

d) when the ball is put into play following the taking of a penalty throw without a change of possession or, corner throw, the clock shall be reset to 20 seconds;

e) when the ball is put into play following the award of a penalty throw with a change of possession, a goal throw or neutral throw, the clock shall be reset to 30 seconds. Visible clocks shall show the time in a descending manner (that is, showing the possession time remaining).

NOTE:

The timekeeper and referees must decide whether there was a shot on goal or not but the referees have the final decision.

WP 21.15(16) To waste time**NOTE:**

It is always permissible for a referee to award an ordinary foul under this Rule before the applicable possession period has elapsed. If the goalkeeper is the only player of the team in that team's half of the field of play, it shall be deemed wasting time for the goalkeeper to receive the ball from another member of that team who is in the other half of the field of play. In the last minute of the game, the referees must be certain that there is intentional wasting time before applying this Rule.

WP 22 EXCLUSION FOULS

WP 22.8 To impede or otherwise prevent the free movement of an opponent who is not holding the ball, including swimming on the opponent's shoulders, back or legs. "Holding" is lifting, carrying or touching the ball but does not include dribbling the ball.

NOTE:

This Rule can also be applied to advantage the attacking team. If a counter attack is in progress and a foul is committed which limits the attack, the offending player shall be excluded. The first thing for the referee to consider is whether the opponent is holding the ball, because if the player is doing so, the player making the challenge cannot be penalized for "impeding". It is clear that a player is holding the ball if it is held raised above the water (figure 9). The player is also holding the ball if the player swims with it held in the hand or makes contact with the ball while it is lying on the surface of the water (figure 10). Swimming with the ball (dribbling), as shown in figure 11, is not considered to be holding. A common form of impeding is where the player swims across the opponent's legs (figure 12), thus reducing the pace at which the opponent can move and interfering with the normal leg action.

Another form is swimming on the opponent's shoulders. It must also be remembered that the foul of impeding can be committed by the player who is in possession of the ball. For example, figure 13 shows a player keeping one hand on the ball and trying to force the opponent away to gain more space. Figure 14 shows a player in possession of the ball impeding the opponent by pushing the opponent back with the head. Care must be taken with figures 13 & 14, because any violent movement by the player in possession of the ball might constitute striking or even brutality; the figures are intended to illustrate impeding without any violent movement. A player may also commit the offence of impeding even if the player is not holding or touching the ball. Figure 15 shows a player intentionally blocking the opponent with the player's body and with the arms flung open, thus making access to the ball impossible. This offence is most often committed near the boundaries of the field of play.

WP 22.16 For an excluded player to re-enter or a substitute to enter the field of play improperly, including:

e) for a flying substitute to enter the field of play not following the correct flying substitution procedure as mentioned in WP 5.6 and WP 5.6.1

WP 23 PENALTY FOULS

WP 23.9 For a defending player to impede an attacking player from behind within the 6 meter area when the attacking player is facing the goal and making a shooting action, unless the defending player makes contact only with the ball. If the defending player's actions prevent the attacking player from shooting, a penalty must also be called.

NOTE:

The referees must award a penalty unless the attacking player scores

WP 24 PENALTY THROWS

WP 24.1 A penalty throw shall be taken by any player of the team to which it is awarded from any point on the opponents' 5 meter line.

New suggestions for changes to the Water Polo Rules and comments on already adopted

BONUS IN QUARTER

Number of ordinary fouls in a water polo match ranges from 47 to 137, that is 19.7 for ordinary fouls per quarter. An ordinary foul for the offender does not carry any sanction. However, it interrupts the game and at the moment it is called it stops the time of pure play until the ball is put in a game. By analyzing the ordinary fouls made during the game we found that 1/2 of them is unnecessary, and from this half even 1/2 of them gives the opponent an advantage. Why? The opponent is resting until the putting the ball in a game (a few seconds) and extends the time it takes to hold the ball in the gross amount because the time runs until free throw is taken. Only one-third of the fouls are actually useful and we can call them tactical fouls that are made tactically correct and on reasonable

grounds. Tactically unjustified fouls are usually those that happen for example on a wing player in attack, and they are often and what they do? They give the attacker (wing) to rest while put a ball in a game, but also to all other players, extending the gross time of the attack. The wing position of player with the ball is most often harmless and does not present a direct threat in the sense of a shot at goal. However, in cases when a wing player is in the position of a passer (a ball transmitter) to a player at a goal chance then the wing is potentially dangerous by an opponent's goal, but such cases in today's water polo are rare. It is to conclude that an ordinary foul on a wing player is completely needless and tactically unjustified in most cases but defensive players, in today's water polo, make them very often. When we asked the defensive players why they did these fouls at all, we did not get any response because they were surprised with this kind of question. We have concluded that these ordinary fouls are made inertial without tactical thinking, because ordinary foul is an integral part of the game without any sanction (Hraste M., Bebić M., Rudić R.(2013), Lozovina M., Pavičić L., Lozovina V. (2007), Lozovina M., Pavičić L., Lozovina V. (2011), Lozovina,V, Lozovina, M. (2012), Lozovina M., , Pavičić L., Lozovina V.(2012).

In position attack a foul is followed after each pass. These fouls are made at the center but also on players who are nine meters away from the goal. It is unlikely that these players endanger goal nine meters far off the goal but these unnecessary fouls are made constantly, out of habit because the ordinary foul is not penalized. Less than 1/3 of the total ordinary fouls are useful to the team that makes them. We are the one of the few sports in which an ordinary foul, apart from the stoppage of the effective time of playing until the ball is put in a game, does not carry a sanction for the offender or his team. We propose that 7 ordinary fouls per quarter, excluding exclusions and penalty throws, represent a "bonus". In a water polo, an ordinary foul is part of a running game. An ordinary foul is made, the effective time of the game is interrupted until a putting a ball in a game, after which the game proceeds further. So, the ordinary fouls slow down the game, make it static and therefore unattractive to viewers that became rarity on matches. We think it is necessary to introduce a "bonus" in the water polo.

In this sense, every ordinary foul would be registered. Our suggestion is that after used bonus (seventh made ordinary foul per team in every quarter) each subsequent ordinary foul is sanctioned by a free kick at 6 meters. For ordinary fouls made after the bonus expiration, a personal mistake would not be register to the offenders because we consider that a sufficient penalty is a free kick with 6m. During performing a free throw, the performer, after the whistle of the referee and the simultaneous lowering of the raised hand, has 5 seconds to hit the goal as well as the right to two fakings (simulating a shot) after which he has to

direct shoot at goal. The goalkeeper, after the whistle of the referee and the simultaneous lowering of the raised hand, has the right to move from the goal line where he had to stay before the whistle of referee. If a ordinary foul, before the expiration of a bonus, is made in a space of 6m from the goal it must be put in a play by the player on who the ordinary foul is made from the place where it was made. This rule does not apply to the rest of the field where the free throw may be performed by another nearest player of the offending team. By a newly adopted rule, the offender can properly put the ball in a game and continue to move to the opponent's goal and to score without the ball passing the other palm. We accept this change in the Rules completely.

Our suggestion is that every contact of a player with two hands in defense at the same time on any part of the field is penalized as exclusion foul. Each contact of the defensive player made from the back, on the attacker who is in the position of the center and possesses the ball but is not in contact with the ball in our opinion should be penalized as exclusion foul. This is how the original rule of exclusion fouls regulates the game. However, contrary to this rule in the game of the center and its defending player in the battle for the position, a contact game is allowed (usually full of roughness) and at the moment when the ball is sent to attacker, the referees on the base of "good or bad pass", judge offense to attacker or defensive player. Suggested changes would change the game of defensive players in the field and especially in the game against the centers (.Lozovina M. and Lozovina V. (2009).

To this rule should be also added to the rule of advantage with the delay of calling a foul. A player who has made an advantage and created a probable chance should be allowed to end the action with a shot at the goal. In the case that a defensive player has improperly attacked an opponent in an attack, but the attacker's action to which he has been allowed to score has failed to score, the referee shall, with delay, judge exclusion foul and thereby restore the possession of the player's ball to the player who was under foul at that moment. This particularly refers on the play of defence player and center in attack but also to the goalkeeper who can be the offender in such situations.

In the case of a completely uncontrolled game of defence player (uncontrolled dangerous game or brutality) and the allowed advantage of the attacker, in the case of scoring from this privileged advantage, we suggest that, except scored goal, the referee judges also penalty throw for the team on whose player the foul was made.

Two possible goals from one action(a goal from a play and a chance or a goal from penalty throw) may seem strange in a water polo, but is this not the case in basketball(personal foul with three throws and technical at the same time). This rule

would force the players in defense to defend themselves on correct and with rules permissible way and completely eliminate the dangerous game and brutality.

The above-mentioned proposed changes of Rules require changes to markings on the sides of the field of play. So we propose that the penalty throw line from 5m returns to 4m(4 meter throw instead of today's 5 meter throw, whereby the water polo is known since it was played). A four meter penalty would be executed under the existing rules.

When performing a free shot, the players of both teams must be behind the 6m line, at least 2m away from the free thrower. To move (enter 6m from the goal) players of both teams can only after the ball has left the hand of the performer. Any unauthorized movement of a player who is out of the ball possession will be awarded as a new ordinary foul (new free throw). If a forbidden action is made by the player in the possession of the ball, he / she will be awarded an ordinary foul (cumulative).

If such ordinary foul is made after the bonus is used, a free shot shall be awarded immediately after performed free shot whether it was a miss or scored goal. In this case, the time of pure play is standing.

Any ordinary foul within six meters, other than the one made after the expiration of the bonus(eighth and further on quarter), from the place where it is made must be taken by the player on who the foul was made.

Suggested changes of Rules of the game will make it more fluid, will enrich it on a tactical plan, will activate all attacking players so that the attack would not only become a static game with the center.

PLAYER MORE/LESS

In today's water polo at the time when team wins possession of the ball, the attack begins with try to counter attack. Counter attack may be of different complexity (from 1: 0 to 6: 5 with handicap). The transition from the defense phase to the attack phase lasts 13.7 seconds on average. If the attempted counter attack does not result with a shot at goal, it is followed by a position attack until the end of time of ball possession. Practically, to the team in possession of the ball and the position attack remains 16.3 seconds to create a chance or a try to shoot on a goal. For this time up to three balls are directed to the center.

When an attacking team is unable to do so, it usually follows a forced shot with some of the outside positions just before the time of the ball possession reaches the end. Particularly, we will emphasize play of the center and the defender who holds it. Today's way of judging, which is, strictly looking, opposed to the rule of exclusion foul, allows a rough contact play of the center and its

defender to fight and win position at 2m. Then, when the ball is sent to the center, the referee, based on personal assessment, judges the "good or bad pass", sanctions or defender or center. Such a way of interpreting rules and judging should be abolished, strictly applying the existing rule of exclusion foul, which will virtually eliminate the contact play of the center and defense player without the ball, and the same rule should be strictly applied to the whole field of play and to all players. This is the only way to bring the beauty of the game back to this sport and the audience to be filled. This introduction was made for another change in the rules of the game we also propose. Because of the serious offense committed, the penalty for the offender is to exclude the player for 20 seconds or to reach a goal if this occurs before the expiration of 20 seconds. How it looks in today's practice? The most frequent exclusion fouls occur in the last seconds of time which limits the possession of the ball. And what to say? The team in possession of the ball did not gain the advantage of the handicap in the attempted counter attack from which it could safely score. The position attack followed, whereby playing statically with the center in the last few seconds team earned exclusion. They got play with player more and twenty more seconds to turn that advantage into a goal. The total possession of the ball and the time of the attack continued for about 45 seconds, though the time of possession in today's valid rules is limited to 30 seconds. The described event is usually the most common in each game, and the realization of the player "more/less" is the "key" that determines the winner of the match.

Our suggestion is that a team that has got a play with player more, based on exclusion foul, can use that play only until the expiration of 35 seconds of possession. The ball possession time is suggested to extend from 30 to 35 seconds. This means that if the team in possession of the ball and with the gained advantage of the player more, by the end of the 35 seconds has 5 seconds left. Then at that time and until the end of time of the possession of the ball has to shoot at the goal. This will bring them into the situation to shoot from half-chances and find tactical solutions to such situations. Accordingly, as the attackers will be brought into the situation now to make "forced mistakes" and they just bring wealth to the variety of situations and solutions, consequently to the beauty of the game. Likewise, this rule would force players to be more active in the game because the earlier they "earn" the play with player more will have more time for their realization. This is especially refers on activating the second-line attackers in a position attack that would actively with swim ins, blocks and in different ways, rather than passive static play, create a goal shot chances and potential exclusion fouls of opponents in defensive tasks.

Proposed and adopted changes of Rules, on our opinion, are not an ideal solution and can be better and improved. We therefore propose an alternative solution that seems to us better and does not

require any additional effort in determining and measuring the extra time and time of the player's exclusion. The team who has been awarded with player more can use that advantage only during possession of the ball of 35 seconds whenever the exclusion was awarded at that time. A player who has made exclusion foul is excluded for 35 seconds and does not enter the game before the expiration of this penalty. Therefore, even in the case of a scored goal by an opponent and even in the case when excluded player's team gets possession of the ball. This approach opens up the possibility of forced shot of team with the player more if the possession of the ball is at the end and forced mistake, which certainly enriches the tactics of the game. On the other hand, the punishment by excluding player becomes effective and after reaching the goal because it still lasts 35 seconds from the moment the player was penalized. It forces the team even after getting a goal, to play some time with the player less. This fact further justifies two new rules: the ability of a goalkeeper to cross the center line and play in the field according to rules that apply to players. Then a rule of 20 seconds for which time the team that has possession of the ball must move the ball to the center line of the court and the rule of passive play and ball retention. All of these points out new tactical elements, improves the game and makes it more attractive and interesting to the audience (Pavičić, L., Lozovina, V., Šimenc, Z. (1987), Lozovina M., Lozovina V., Pavičić L. (2012), Pavičić L., Lozovina M., Lozovina V. (2014).

Flying substitution

The handball, basketball and ice hockey experience tells us that "flying substitution" is welcomed at water polo, especially because the water polo plays in extremely slow media. "Flying substitution" takes place on the lateral side of the field of play, on the side of bench for reserve players. "Flying substitution" should be made from the goal line to the half field mark, so that at the time of the change both players should be out of the playing field in the lateral area (both heads over the water line), achieving physical contact by touching the hands(palm) and then the substitute player enters the playground. Flying substitution can be made at any time while the game runs from the player whose team is in possession of the ball and those who defend at that time. This certainly contributes to the formation and use of different tactics and tactical variants and thus improves the water polo.

There is no theoretical chance that a flying substitution would give the team a direct advantage, whether in attack or defense, but well thought-out and made substitutions can directly affect certain tactical solutions and thus directly enrich the game. A sanction for a flying substitution that has not been made according to the rules for the player in possession of the ball is an ordinary foul and the loss of possession of the ball. A sanction for an improperly executed flying substitution of a player who is not in possession of the ball is an exclusion foul and personal mistake

for the player entering the game. A different sanction for the same foul sternly penalizes team players in the defensive task (a team that does not have the ball) so they do not obstruct the attacker's game purposely (.FINA Water Polo Rules 2018 – 2020 Amendments, Additions, Interpretations and Explanations, Hraste M., Bebić M., Rudić R. (2013), Lozovina M. and Lozovina V. (2009). Example: A 1: 0 counter attack takes place with a few feet ahead. In pure chances, the defending team makes improper flying substitution. In such a case of deliberately obstruct the game, the referee will allow the attacker's advantage, which can result with the goal but also with goalkeeper's defense. In the case of scoring, the referee will adjudge a goal and a player who has made an improper flying substitution will be penalized by exclusion. In the case that a goal has not scored, the referee will stop the game and punish with exclusion the player who has made the flying substitution in an improper manner. For the team that failed to finish attack successfully the penalty throw will be awarded.

Corner – out

It is not logical but the rules are defined so that a ball that is rejected from the defensive player's hand and ends behind a goal line is not a corner, but the corner is only in the case when the goalkeeper rejects the ball off the goal line. The hand of the defender, from which ball was rejected, was in the game, no matter in which second of attacker's ball possession. In any case the ball was flying to a goal. Why, because of an efficient block of defense, punish the attacking team by taking them the ball and there is still time until the end of the ball possession. This is most commonly occurring when trying to score in counter attack. However, even if the shot that was blocked by a defensive player, ended up behind the goal line, in the last five seconds to determine the possession of the ball, the corner is a corner and should be awarded for the attacking team, but not give them a new attack time because they didn't earn it with their play. Corner throw is performed from 2m line and player who performs it, can directly shoot the goal and score without a ball touches the second palm.

Therefore, it is not necessary for the ball to pass two hands to be in the game, because scoring goal will be allowed directly from the corner throw. Even more so if performer of corner throw swims at the goal, shorten the distance and scores from direct shot, the score will be admitted. The time, and thus the continuation of the ball possession, begins to be measured from the moment when the referee whistles to make the corner throw. This new established and still valid game rule came very good in the water polo. Following the above, we suggest that the out and the corner throw are judged against the player or team whose player last had contact with the ball before it crossed the out or the goal line (.Donev, Y. & Aleksandrović, M. (2008), Pavičić, L., Lozovina, V., Šimenc, Z. (1987).

Two – hand block

According to today's Rules of the game, the player in the defense phase is forbidden to lift both hands in the block. Failure to comply with this rule is treated as a serious foul. We are of the opinion that defense players should be allowed to perform a two-hand block. However, each touch of the ball at the same time with both hands should be judged as a serious foul. Within six meters from the goal as a penalty throw (4 meter mark) and out of six meters as exclusion foul. This rule would enrich defense tactics and equally force the attackers to design tactical solutions to come in a chance for shot and score.

20 SECONDS RULE

From the moment a team came in possession of the ball, has to pass the center of the field, with the ball, in 20 seconds. Otherwise, it loses the possession of the ball and the team that enters in the ball possession begins the play from anywhere in the center line.

To waste time

It is not common but a case has been seen in matches where the outcome of the match was essential to the teams. The team which has possession of the ball by holding the ball wears precious time playing halfway back and not trying to start the attack. In doing so, and under the pressure of the opponent, the players are playing passes even with a goalkeeper. Substantially "pressing" as a drastic form of "man-to-man" play on the whole field cannot be performed in this case because there is an uncovered "more" player in the game and that is a goalkeeper.

In this case, the goalkeeper de facto represents the player more for the team in possession of the ball. In order to avoid such situations, we propose a rule that no player in the possession of a ball may pass the ball to the goalkeeper during the entire game.

The offender of this rule is awarded a heavy foul (exclusion), and if the foul occurred within 4m from the goal, a penalty throw. This rule does not apply when the team is in possession of ball and plays with the excluded player because the goalkeeper is then treated as the sixth player in the field. In this case, referees must watch the rule for 20 seconds and all backwards passes must be treated as game retention (FINA Water Polo Rules 2019 – 2021)..

PERFORMING FREE SHOT AFTER „BONUS“

During the duration of the bonus (up to the seventh ordinary foul in the quarter), the player in whom the foul is committed may shoot directly if the foul is made at a distance of more than 6m from the goal. In this case, a defensive player may raise a hand or two in an attempt to block a shot should be at least 1m away from the player who performs the throw. In the case that a defensive player breaks this rule will be sanctioned by exclusion (distance less than 1m or simultaneous blocking with both hands).

Text of proposed rules submitted with current existing fina water polo rules

WP 1. FIELD OF PLAY & EQUIPMENT

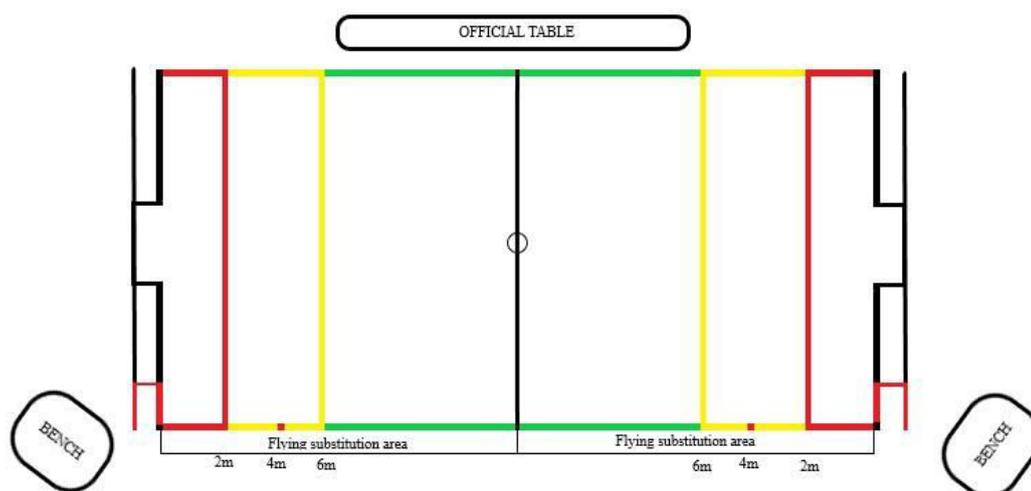


Image 1. Field of play

We propose a change in WP 1.6 paragraph d) which is changed and reads:

WP 1.6

d) a red marker shall be placed 4 meters from goal lines to indicate the point from which a penalty shot must be taken.

WP 2. GOALS

It remains as defined in the new Rules and does not change.

WP 3. THE BALL

It remains as defined in the new Rules and does not change.

WP 4. CAPS

We suggest a change in WP 4.3 which changes and reads:

WP 4.3 Caps shall be numbered on both sides with numbers 0.10 meters in height. The goalkeeper shall wear cap no. 1 and the other caps shall be numbered 2 to 99. The same player must always wear the same number of caps under which he is registered for that season (calendar year). A substitute goalkeeper shall wear a red cap numbered 13. A player shall not be allowed to change cap number during the game except with the permission of a referee and with notification to the secretary. In accordance with the new proposed

WP 4.3 it is necessary to redefine WP 4.3.1.

WP 5. TEAMS AND SUBSTITUTES

In WP 5. we accept all changes made.

We add a paragraph to WP 5.6 which reads:

A sanction for a flying substitution that has not been made according to the rules for the player in possession of the ball is an ordinary foul and the loss of possession of the ball.

A sanction for an improperly executed flying substitution of a player who is not in possession of the ball is an exclusion foul and personal mistake for the player entering the game.

WP 6. OFFICIALS

In NOTE to WP 6.1 which defines two timekeepers and two secretaries in chapter b) Secretary No. 2, behind the last part of the text "player exclusion and third personal mistake" is added: and every ordinary foul judged to all teams.

We are pleased to accept paragraph c) in NOTE for WP 6.1 added to the new Rules, but we think that the formulation of this WAR role is very limited and will not have a significant impact on the regularity of the judging and ultimately on the results. The video assistant referee should have a much more significant role than was assigned to him.

WP 7. REFEREES

We suggest changing the text of WP 7.3 and thus the essence of this article that should be read:

WP 7.3 Judges have the discretion to not judge any ordinary foul, exclusion or penalty foul if such a decision gives advantage to the defending team.

If the allowed advantage of the attacker's action is not completed by a goal, the referee will postpone judge exclusion or penalty throw for the attacking team.

NOTE: Judges must apply this principle consistently and in full.

WP 8. GOAL JUDGES

It remains as defined in the new Rules and does not change.

WP 9. TIMEKEEPERS

In Rule WP 9.1 paragraph (f) is added which reads:

f) to measure the time for the team that came in possession of the ball, the ball must cross the center (20 seconds)

In Rule WP 9.2 in the first sentence after the word of each period should be added: the overrun of time for which the team who came in possession of the ball must pass the center, independently of the referees.

WP 10. SECRETARIES

In WP 10.1 The duties of the Secretaries paragraph a) will be changed, which reads:

a) to maintain the record of the game, including the players, the score, timeouts, ordinary fouls, getting out of bonus, free shot, exclusion fouls, penalty fouls, and personal fouls awarded against each player.

Additionally, paragraph e) is added which reads:

e) giving a sign of elapsing a time of 20 seconds for which time the team that came in possession of the ball did not cross the center line with the ball.

NOTE: The secretary, with a vertical line in record of game, records any ordinary foul made by any player of both teams. After the seventh ordinary foul and the "bonus" expiration each subsequent ordinary foul will be awarded as a free shot with 6m and the secretary will announce it with a whistle and register with a dot.

WP 11. VIDEO ASSISTANT REFEREE

It remains as defined in the new Rules and does not change.

WP 12. DURATION OF THE GAME

It remains as defined in the new Rules and does not change.

WP 13. TIMEOUTS

It remains as defined in the new Rules and does not change.

WP 14. THE START OF PLAY

It remains as defined in the new Rules and does not change.

WP 15. METHOD OF SCORING

WP 15 according to the new Rules is regulated by WP 15.1, WP 15.2, WP15.3, WP 15.4 and NOTES. In WP 15, we propose an amendment to WP 15.4 where the text reads:

A goal shall be scored if, at the expiration 35 seconds possession, as applicable, or at the end of a period, the ball is in flight and enters the goal.

WP 16. RESTARTING AFTER A GOAL

It remains as defined in the new Rules and does not change.

WP 17. GOAL THROWS

We propose an amendment to WP 17.1 paragraph a) which reads:

a) when the entire ball has passed fully over the goal line excluding between the goal posts and

underneath the crossbar, having last been touched by any player of the attacking team.

NOTE : We think that when the last contact with the ball had a defense player, and the ball ended just behind the goal that it was a corner and there was no valid reason to actually take possession of the team that had been in the attack so far. This rule does not exist in any other sport game.

WP 18. CORNER THROWS

We propose an amendment to WP 18.1. which reads: A corner throw shall be awarded when the entire ball has passed fully over the goal line excluding between the goal posts and underneath the crossbar, having last been touched by the goalkeeper or any player of the defending team or if defending player deliberately sends the ball over the goal line.

NOTE to WP 18.2 : The performer can direct shoot at goal. If the ball crosses the imagined goal line, even though no "second palm with intention" has been played, it will be considered that the ball was in the game, and the goal shall be scored. The performer can put the ball in a game by himself, swim in with the ball towards the goal, and shoot to the goal. If the ball passes over the imagined goal line, the goal shall be scored.

WP 19. NEUTRAL THROWS

It remains as defined in the new Rules and does not change.

WP 20. FREE THROWS

We propose an amendment to WP 20.2. In this article, behind the second sentence, it is necessary to add: If an ordinary foul before the expiration of a bonus is made in a 6m area from the goal free throw must be made by the player on whom the ordinary foul is committed and from the place where it was made. This rule does not apply to the rest of the field where the free throw may be executed by another nearest player of the team who has been awarded the foul.

In WP 20. it is necessary to add WP 20.5 which regulates the "free shot" that is executed after every ordinary foul after the quarterly bonus expires (eighth and further fouls).

Article WP 20.5 reads: After the team has used a bonus in the quarter (7 ordinary fouls), each of the following ordinary fouls will be punished by a free shot from the 6m line.

NOTE: The detailed description of the free shot is defined in the articles of WP 21. Rule.

WP 21. ORDINARY FOULS

WP 21.13 is changed and reads:

To last touch the ball that goes out of the side of the field of play (including the ball rebounding from the side of the field of play) a free throw is awarded against the team whose last player touched the ball and the ball shall be put in a game from the point where the ball ended in the out.

WP 21.14 is changed and reads: A team which retains possession of the ball for more than 35 seconds of actual play without shooting at the opponent's goal loses possession. The timekeeper shall restart the time.

After "the timekeeper recording..." in paragraphs a), b), d) and e) the time is changed from 30 to 35 seconds.

WP 21.16 To waste time.

We propose adding a new rule to WP 21. 15. "20 seconds Rule", which reads: From the time a team entered possession of the ball, at 20 seconds time must pass the center of the field of the play. Otherwise, it loses possession of the ball, and the team entering the ball possession begins play from anywhere in the center line. No player in the possession of a ball shall, during the entire game, return the ball to the goalkeeper. The offender of this rule is punished by exclusion foul and if the foul occurred within 6m of a goal with a penalty throw.

New Rules WP 21.17 and WP 21.18

WP 21.17 Seven ordinary fouls in one quarter represent "bonus" for the team that made them. Each subsequent ordinary foul is sanctioned by a free shot from 6 meters. For ordinary fouls made after the bonus expiration, no personal foul is registered to the offender.

When performing a free shot, the performer, after the whistle of the referee and the simultaneous lowering of his raised arm, is entitled to two simulated shots after which he has to take a direct shot at goal. The goalkeeper, after the whistle of a referee, has the right to move from the goal line on which he must be until the referee whistles and lowers his hand to mark the start of a free shot.

WP 21.18 If an ordinary foul, before the expiration of a bonus, is made in a 6m area from the goal it must be taken by the player in whom the ordinary foul is committed and from the place where it was made.

This rule does not apply to the rest of the field where a free throw may be performed by another nearest player of the attacking team. When performing a free shot, the players of both teams must be behind the free shot line of 6m, at least 2m away from the player who performs it.

To move (enter the zone 6m from the goal) players of both teams can only after the ball has left the performer's hand. Any unauthorized movement of a player without the ball possession will be awarded as a new ordinary foul (new free shot). If an unallowable action is made by the player in the possession of the ball, he will be awarded a ordinary foul (cumulative).

If such an ordinary foul is made after the bonus is used, a free shot is awarded immediately after previously free shot for his team has been

performed whether it resulted with goal or miss. In this case, the time of pure play stands.

WP 22. EXCLUSION FOULS

WP 22.6 is changed and reads: A block with two hands is allowed on the whole field if the defending player is at least 1m away from the player who puts the ball in a game.

An opponent's foul will only be judged if the player in the defense touches the ball with both hands simultaneously anywhere in the field. Outside 6 meter area as an exclusion foul, and within 6 meter area as a penalty throw.

WP 22.8 is changed and reads: To impede or otherwise prevent the free movement of an opponent who is not holding the ball, each touch with one or two hands with the intention of preventing swimming progression including swimming on the opponent's shoulders, back or legs. "Holding" is lifting, carrying or touching the ball but does not include dribbling the ball.

NOTE: This Rule should be applied strictly throughout the game on the whole field, but not only during the attempted counterattack but also in the position attack. This particularly applies to players of the second line of attack that are mobile in a position attack.

WP 22.9 in our opinion, the most important rule of the game. For this rule we suggest an amendment that defines it most precisely.

WP 22.9 reads: To hold, sink or pull back an opponent who is not holding the ball. "Holding" is lifting, carrying or touching the ball, but does not include dribbling the ball.

- a) The game of the center and the guard does not permit a contact game to select the position at 2m.
- b) All guard and center contacts will be judged strictly according to the rules of the game.
- c) Each contact with both hands on a center that is not in contact with the ball is a foul for a penalty throw.
- d) Each one-handed contact with the center at which the ball is sent, and the center is not in contact with the ball is a exclusion foul.
- e) The start on the ball passed to the center with one hand to attempt to clear the ball or an unsuccessful attempt to sink the ball in the center's hand is not a hard foul, is awarded as a ordinary foul that is put in a game by center from place where the foul was made.

WP 22.15 is changed and reads: In the case of simultaneous exclusion of players of opposing teams during play, both players are excluded for 35 seconds. The possession clock is not reset. Play is restarted with a free throw to the team which had possession of the ball. If neither team had possession when the simultaneous exclusions were called, the possession clock is reset to 35 seconds and play shall be restarted with a neutral throw.

WP 23. PENALTY FOULS

In WP 23.2 chapter b) is replaced by the following:
If a defensive player attempts to block a shot and in that attempt touches the ball with two hands at the same time.

NOTE: Just lifting both hands in a block is not a foul by this rule.

WP 24. PENALTY THROWS

WP 24.1 is changed and reads: A penalty throw shall be taken by any player of the team, except goalkeeper, to which it is awarded from any point on the opponents' 4 meter line.

WP 24.2 is changed and reads: All players shall leave the 4 meter area and shall be at least two meters from the player taking the throw. On each side of the player taking the throw, one player of the defending team shall have the first right to take position.

The defending goalkeeper shall be positioned between the goal posts with no part of his body beyond the goal line at water level. Should the goalkeeper be out of the water, another player may take the position of the goalkeeper but without the goalkeeper's privileges and limitations.

WP 25. PERSONAL FOULS

It remains as defined in the new Rules and does not change.

WP 26. ACCIDENT, INJURY AND ILLNESS

It remains as defined in the new Rules and does not change.

In the entire Rule text it is necessary to replace the term five meter throw (penalty throw) (5m) by the word four meter throw (penalty throw) (4m).

In the text of Rules new terms are introduced: Free shot, Bonus, flying substitution, 20 seconds Rule, two-hand block. The original new Water Polo Rules can be downloaded from the official FINA website.

Conclusion

Based on detailed expert-scientific analysis of today's Water Polo, provoked by accepted changes in Rules of Water Polo game, and skeptical towards mentioned, considering them insufficient „cosmetic contribution“, we are free to suggest changes that will surely improve Water Polo game and make it more attractive. With suggested changes there would be some changes on markings in field of play. Penalty throw would be taken from 4m line which implicate moving penalty throw mark from 5m to 4m. Freeshot would be taken from 6m line. „Bonus“ in quarter would be introduced and free shot after used bonus. „Flying substitutions“ on lateral side in field of play are accepted in version of new Rules 2019-2021. The changes in the reach of corner throw an out were suggested, and the way of executing corner throw is accepted as in version of new Rules. The possibility of two handed block in defense phase of play is suggested. We fully agree with the rule of 20 sec for which the team in possession of the ball must cross the center of the field of play. A penalty for returning a ball to a goalkeeper is also suggested, as performance of ordinary foul that is regulated until the bonus last. An article under chapter Ordinary fouls is added which regulates prevention of free advancing in swimming that we consider to be extremely important. The change of duration of ball possession is proposed an also duration of time of excluded player. The review of the referees and the way of judging in today's Water Polo is also given. We consider that they have to judge strictly by the rules with as few opportunities and rights as possible for free estimates. Suggested changes in Rules of game are articulated, with the previously argued explanations, in articles FINA Water Polo Rules 2019 – 2021 Amendments, Additions, Interpretations and Explanations Effective as of 10 February, 2019. We are of the opinion that the period of one year from the moment when the proposed changes are officially accepted is sufficient for adaptation, and then for the official application of the rules at all official competitions in water polo.

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